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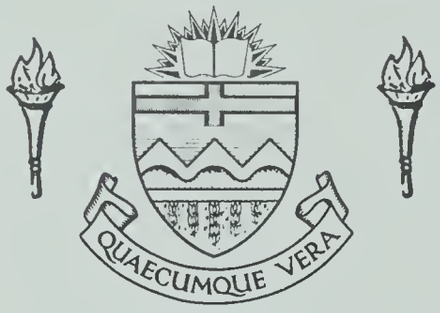

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THE UNIVERSITY OF ALBERTA

THE EGO STATE INVENTORY, ITS CONSTRUCTION AND VALIDATION

BY

© DAVID GORDON McCARLEY

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "The Ego State Inventory, Its Construction and Validation" submitted by David Gordon McCarley in partial fulfilment of the requirements for the degree of Doctor of Philosophy.

ABSTRACT

The personality concept ego state as used by Eric Berne in his theory of transactional analysis was investigated by means of the Ego State Inventory (ESI). The ESI was designed and constructed to measure these ego states: Punitive Parent (PP), Nurturing Parent (NP), Adult (A), Rebellious Child (RC) and Adaptive Child (AC).

The inventory contained 52 items which were cartoon drawings of people in social situations. Subjects chose one of five ego state responses given for each item. Scores were obtained for each of the five ego states, and high scores indicated a strong presence of a particular ego state.

Reliability coefficients for the ESI were within acceptable limits, test re-test average .62 and internal consistency average .76.

Specific predictions were made about the way different known groups (policemen, Catholic Sisters, computer programmers, juvenile delinquents and student nurses) would score on the five ego states measured by the ESI. Predictions were also made about the nature of the relationship between ESI scores and other psychological variables.

The testing of these two sets of hypotheses involved the construct validation of the ESI. Data were collected

from the various groups using the ESI and other instruments.

An examination of the results indicated that the ESI was only partially effective in discriminating among the police, Catholic Sisters, computer programmers and student nurse groups on the basis of ego state. ESI scores were not significantly related to the variables of age, sex and educational level. The ESI was very effective in discriminating the juvenile delinquents group from the other four groups. The majority of predictions regarding the relation of ego states to other psychological variables were non significant but were in the predicted directions.

The results suggest that ego state is a productive concept in the area of personality investigation. Suggestions were offered for the further use of the ESI and for its practical application.

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CHAPTER I

INTRODUCTION

The concept ego state originated and developed within the context of Freudian psychoanalytic theory. The term ego state may be traced historically to the ego psychology of Paul Federn, a student and admirer of Freud. Weiss (Federn, 1952) clarified Federn's conception of the ego as,

> . . . an experience, as the sensation and knowledge of the individual of the lasting or recurrent continuity, in time, space, and causality of his bodily and mental life. This continuity is felt and apprehended as a unity. The metapsychological basis of the ego is a state of physical cathexis of certain, interdependent bodily and mental functions and contents . . . (p. 8).

According to Federn, uniformity of character rests upon firmly established, invariable ego states. Individuals have a great number of non-conscious ego states with a variety of contents and boundaries which might become conscious but which preconsciously or unconsciously have an influence on an individual's feelings and thoughts. The concern of psychoanalysis, according to Federn is their methodical investigation.

The concept is given greater clarification and elaboration by Federn's colleague, Edoardo Weiss, who interprets much of Federn's work. Weiss (1960) equates ego state and what is called a "mental condition" or an

emotional state and says that the description of an ego state requires many adjectives, e.g., loving, depressed, happy, etc. He indicates that in the course of a single day an individual's ego might pass through several ego states, these being determined by the individual's needs and the external situation in which the individual finds himself. Every ego state is conceived to be actually experienced reality of the mental and bodily ego including the contents of the lived through period. The recall of ego states could vary; some might be easy to recall and others strictly repressed. Even though ego states might be unconscious, they still retain their unity and organization. Weiss (1950) described the phenomenon of the adult retaining a residual ego state which is infantile in nature and resembles a "child ego". He also mentions the "psychic presence" which is the "mental image of another ego" sometimes emanating from one's parents. These two ego states in addition to the individual's current ego state might influence one's behavior at any point in time. He thought that repressed ego states become conscious during hypnosis and that a neurosis can be caused by the repression of a pertinent ego state. During the course of psychoanalytic treatment the ego states with their accompanying contents and emotions would emerge into consciousness.

The concept of ego state remained within the realm of psychoanalysis exclusively until Penfield's study (1952)

of brain function offered some physiological support for the use of such a concept. Although Penfield does not use the term "ego state", many of his findings correspond very closely to the theorizing of the psychoanalysts. Berne (1961) indicates that the work of Penfield has demonstrated that memories are stored, in natural form, as ego states. Penfield's studies demonstrate that memory function which is characteristically thought of as a psychological process is also biological (Harris, 1969). By electrical stimulation of the superior and lateral surface of both temporal lobes of the cortex and to some extent the parietal lobes of epileptic patients Penfield was able to elicit memories in the patients which correspond to phenomena which are classified as ego states by the psychoanalysts. Penfield (1952) describes the electrical stimulation of this "memory cortex" as:

> A song goes through his mind, probably as he heard it on a certain occasion; he finds himself a part of a specific situation, which progresses and evolves just as in the original situation. It is to him the act of a familiar play, and he is himself both an actor and the audience.
>
> The subject feels again the emotion which the situation originally produced in him, and he is aware of the same interpretations, true or false, which he himself gave to the experience in the first place. Thus evoked recollection is not the extact photographic or phonographic reproduction of past scenes and events. It is reproduction of what the patient saw or felt and understood (p. 183).

Penfield and Roberts (1959) say that once an individual has an experience and it is stored in the memory cortex it ceases to be conscious but does not lose its power to influence the individual's behavior. If a person is to make a decision about the familiarity, appropriateness, etc., of a present experience, then the record of past experience must be available to him. This involves comparison and clarification of the new record with the similar old records. This process corresponds to the useful judgments that a person is constantly making in comparing present with past experience. They also state that this process is a subconscious comparative interpretation with the signals of interpretation rising suddenly into consciousness with little or no voluntary recall of similar experience for comparison purposes. These recorded patterns in the cortex are seen as having potential for elicitation or retaining their "increased excitatory efficacy" for most of the individual's lifetime.

> And yet the recorded patterns are useful to him, even after the passage of many years. They can still be appropriately selected by some scanning process and activated with amazing promptness for the purposes of comparative interpretation (Penfield and Roberts, 1959, p. 55).

Eccles and McIntyre (1951) provide evidence which suggests support for the above statements on the durability and efficacy of neuronal cortical patterns. They found direct experimental evidence which supported their hypothesis

that synapses increase in functional efficiency with usage and that disuse leads to defective function. Hebb (1964) also states that if learning is to be understood as a physiological process the assumption is that an impulse crossing a synapse facilitates later impulse transmission across that synapse.

The physiological evidence then provides these working assumptions in the investigation of ego state. There are discrete, organized, experiential memories stored in the cortex for long periods in an individual's life, and these long ago experiences or states have an influence on the individual's present behavior. In addition, the more these states have been activated for a comparison function the more available they are for elicitation.

It remained for Berne (1961), a student of Penfield, to draw together all of the information on ego states and formulate a theory of personality and psychotherapy in which ego state is the central concept. Berne's conceptualization of ego state is the most comprehensive and will be the one used in the present study. He uses the term to denote a state of mind and its related behavior patterns. He defines ego state in the following manner:

> An ego state may be described phenomenologically as a coherent system of feelings related to a given subject, and operationally as a set of coherent behavior patterns; or pragmatically, as a system of feelings which motivates a related set of behavior patterns (p. 17).

The personality is conceived as having three psychic organs, the exteropsyche, neopsyche and archaeopsyche and these manifest themselves phenomenologically as extero-psychic, e.g. identificatory; neopsychic, e.g. data processing; and archaeopsychic; e.g. regressive, ego states (Berne, 1961). These are referred to as the Parent, Adult and Child respectively. Ego states are not seen as roles but as psychological realities with each individual having a limited repertoire of these behaviors (Berne, 1964).

In further delineating his thinking about the choice of these three ego states in his theorizing, Berne (1964) lists three "pragmatic absolutes", i.e., conditions to which no exceptions have been found and three general hypotheses which are given as follows:

1. That every grown-up individual was once a child.

2. That every human being with sufficient functioning brain tissue is potentially capable of adequate reality testing.

3. That every individual who survives into adult life has had either functioning parents or someone in loco parentis.

The corresponding hypotheses are:

1. That relics of childhood survive into later life as complete ego states (Archaeopsychic relics).

2. That reality testing is a function of discrete ego states and not an isolated "capacity" (Neopsychic functioning).

3. That the executive may be taken over by the complete ego state of an outside

> individual, as perceived (Exteropsychic functioning) (Berne, 1961, pp. 35-36).

The following is a structural diagram of the personality which can be drawn for any individual.

FIGURE 1

EGO STATES

The transactional analytic view of the personality is basically a trichotomous one, as is Freud's psychoanalysis. Although there are similarities between the Freudian superego, ego and id and the Parent, Adult and Child, Berne emphasizes that there are also distinct differences. Berne (1966) states that superego, ego and id are inferential concepts, forces or "agencies" whereas ego states are experiential, behaviorial realities. The trichotomy of ego states is taken quite literally as if the person were three different people (Berne, 1966). The

id, for example, is described by Freud as being

> . . . a chaos, a cauldron of seething excitement . . . it has no organization and no unified will . . . the laws of logic . . . do not hold for purpose in the id. There is nothing in the id which can be compared to negation (Freud, 1933, p. 104).

In contrasting the id with the Child ego state Berne (1961) states the following,

> Since the Child ego state reproduces the ego state of the actual child, the difference is immediately apparent. A child has organization, unified will, logic, and certainly negation. Also unlike the id, he knows good and evil (p. 198).

A detailed and systematic discussion of the differences between psychoanalysis and transactional analysis is beyond the scope of the present study. The developments of the two theories occur at different points in time and in very different social contexts. One, near the turn of the century in Europe and the other in the 1950's and 60's in the accelerated culture of North America. One of the major differences between the theories is that transactional analysis supplies an easily learned framework with a small, specialized vocabulary and provides a systematic way of ordering and dealing with very complex phenomena. Berne (1966) states that, "Transactional theory is simpler and more scientifically economical in its statements than many other psychotherapeutic theories" (p. 216).

In Berne's theory, structural analysis is the procedure by which an individual looks into his own behavior

and others and tries to determine which ego state is active at a given time and what information is coming from that ego state.

In social intercourse the basic unit is the transaction. Whenever two or more people encounter and interact there is a transactional stimulus from one and a transactional response from the other. Simple transactional analysis involves determining from which ego state the transactional stimulus arises and from which ego state the transaction response is elicited. Transactions are divided into two classes: (1) complementary transactions and (2) crossed transactions. A transaction is complementary if the response is appropriate to the stimulus and follows in the natural order of healthy human interaction (Berne, 1964). In a complementary transaction the stimulus-response communication vectors are parallel. The following is an illustration of a complementary transaction (Adult-Adult type).

In this example information is being asked for in an objective manner for processing. Then Mrs. X gives the information which can presumably be processed by Mr. X and they can move on to other transactions.

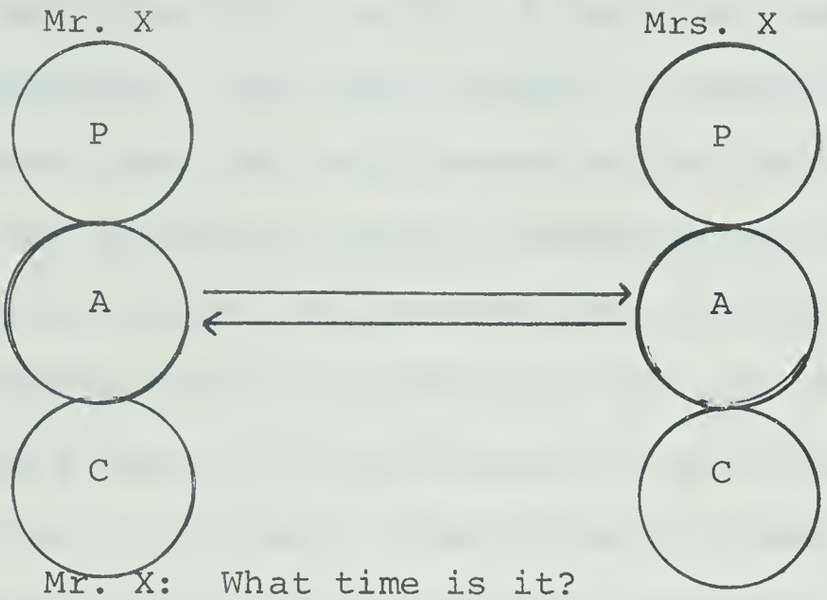


FIGURE 2

COMPLEMENTARY TRANSACTION (A)-(A)

The example below illustrates a complementary transaction (Parent-Child type).

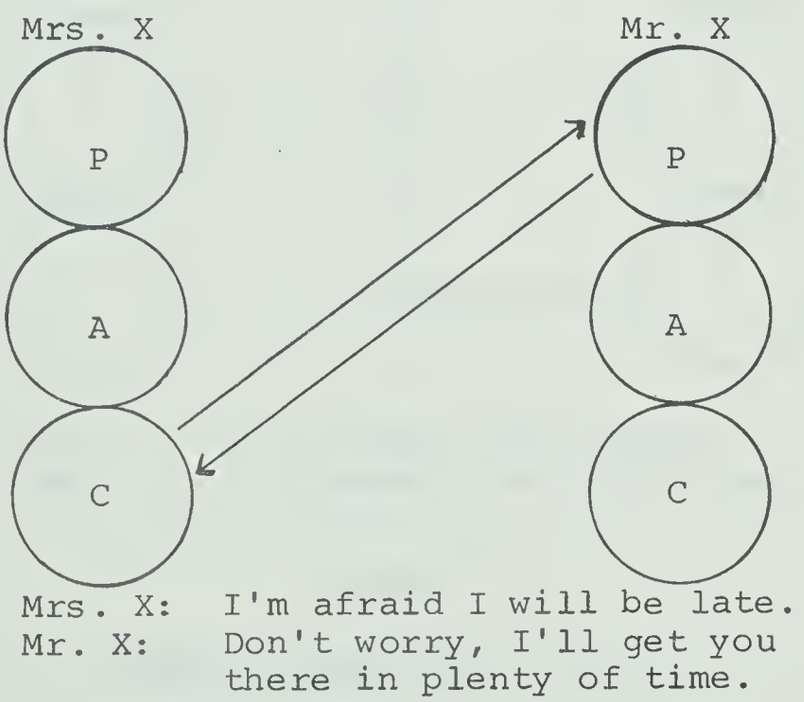
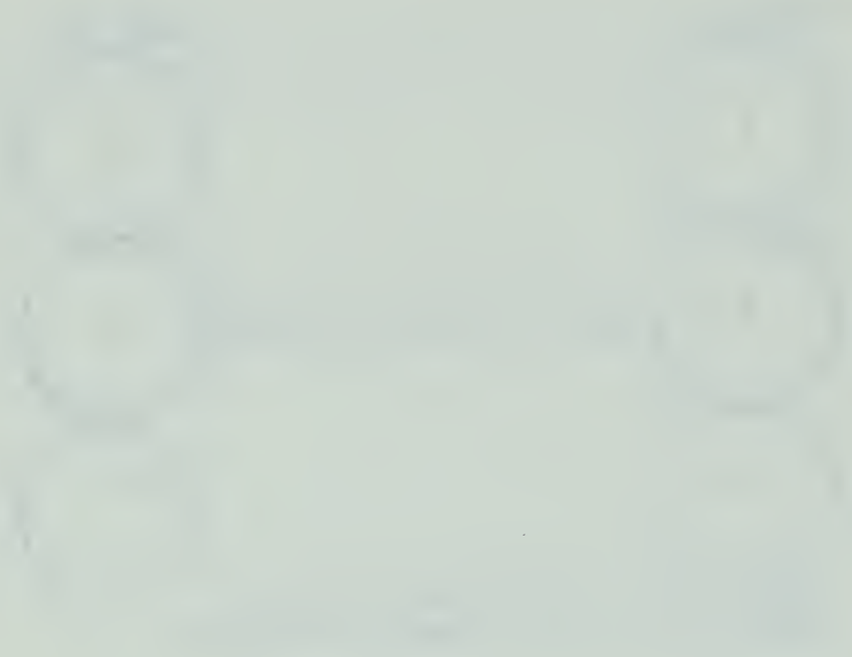


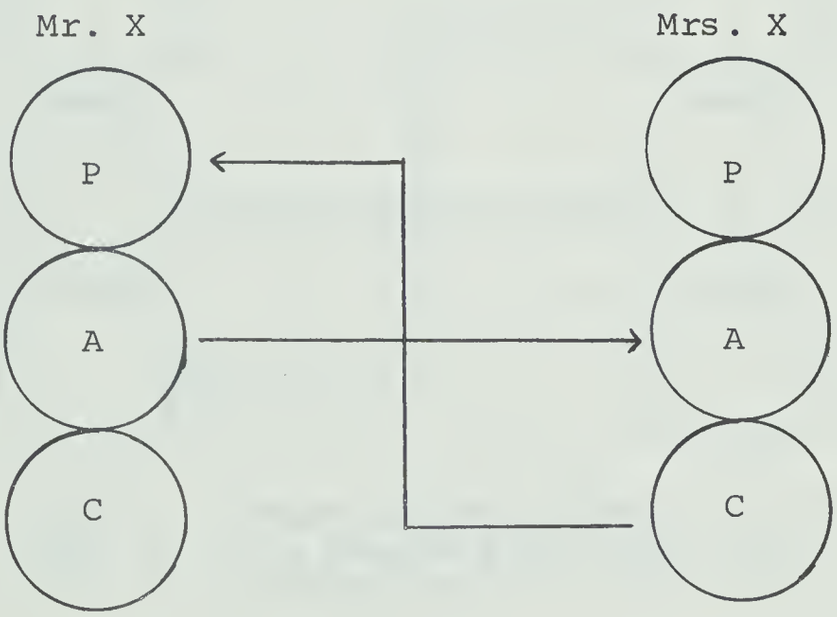
FIGURE 3

COMPLEMENTARY TRANSACTION (P)-(C)



Here the Child in Mrs. X expresses anxiety and asks for reassurance. The Parent in Mr. X provides this reassurance, and they can proceed to the next transaction.

The stimulus-response communication vectors in a crossed transaction are not parallel, and when this crossing occurs communication is broken off and transactions must cease until there is a realignment of ego states by one or both of the individuals. The following example of a crossed transaction is the type which causes the most social difficulty and is the chief concern of psychotherapists, the classical transference reaction (Berne, 1964).



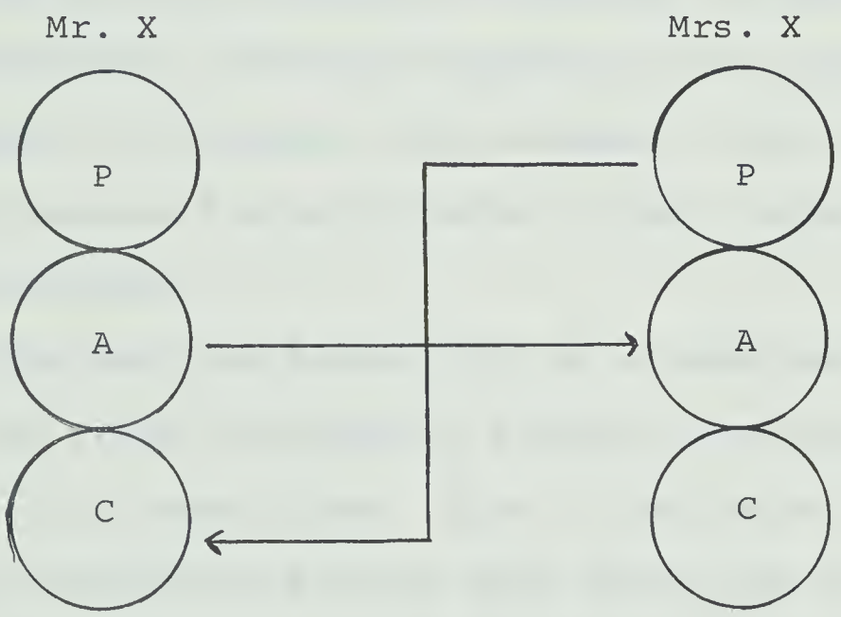
Mr. X: Do we have any catsup?
Mrs. X: You never like what I cook.

FIGURE 4

CROSSED TRANSACTION (C)-(P)

The Adult in Mr. X asked in an objective manner for information. In this instance the Child in Mrs. X hears the question and interprets it as a criticism from the Parent of Mr. X. Here communication is broken off and realignment of the stimulus-response communication vectors will have to occur before they can continue to communicate.

The following is another example of a crossed transaction. An Adult stimulus is given by Mr. X, but it is the Parent in Mrs. X that speaks to the Child in Mr. X.



Mr. X: Where are my socks?
Mrs. X: You should know where your things are.

FIGURE 5

CROSSED TRANSACTION (P)-(C)

Berne (1961) describes the individual who is the "constant" Parent, Adult or Child. These are people who

characteristically "come on" from one ego state in particular, with their attitudes, feelings and behavior being most programmed by the exteropsyche, neopsyche or archaeopsyche. One of the purposes of this study is to determine whether certain groups which seem to come on from one ego state in particular have the presence of the "constant" ego state which can be measured by an ego state inventory. This research will concentrate on investigating five subdivisions of the ego states which have made their appearance in the transactional analysis literature (Berne, 1961; Hall, 1963; and Porter, 1966) and appear to have possibilities for application in diagnosis and treatment. They are the Punitive Parent, Nurturing Parent, Adult, Adaptive Child and Rebellious Child.

The Punitive Parent (PP) is a subdivision of the Parent ego state and contains a huge collection of "no's", "don'ts", and admonitions. Here is the center of the rigidly internalized sets of data which come from authority. Berne (1961) uses the term "prejudicial" Parent when he describes this kind of ego state. This type of Parent is seen as having "a set of seemingly arbitrary non-rational attitudes or parameters, usually prohibitive in nature . . ." (p. 76). He also describes this kind of Parent as having dogmatic and disapproving attitudes (Berne, 1963).

The Nurturing Parent (NP) which has sometimes been equated with the "Good Parent" (Hall, 1963), has not

received as much attention in the literature as the (PP), probably because it is the (PP) which is the source of much distress and receives the most therapeutic attention. The (NP) is often seen in supporting or sympathizing with another person (Berne, 1963).

The Adult (A) has been described as a data processing computer that estimates probabilities which are essential for the organism to interact effectively with the environment. The (A) checks out old data and validates or invalidates it then refiles it for future use (Harris, 1969). The data of the (A) consists of clearly perceived reality and factual information. It is "organized, adaptable and intelligent, and is experienced as an objective relationship with the external environment based on autonomous reality-testing" (Berne, 1961, p. 77). It is that part of the individual which provides solutions to problems.

The Adaptive Child (AC) is formed by the influence of parental demands. Parental domination and expectations lead to the compliant or withdrawal behaviors, attitudes and feelings characteristic of the (AC) (Berne, 1966).

The Rebellious Child (RC) is one characteristic of the Natural Child described by Berne (1964) as a spontaneous expression where intuition, rebellion and creativity reside. The rebellious characteristic of the Natural Child has been further described as impulsive and self-indulgent (Berne, 1963) and as being "directed against external restraints and

expressed in openly self-indulgent or assertive acts" (Hurley and Porter, 1967, p. 28). These kinds of behavior, attitudes and feelings have been consolidated to comprise the (RC) for purposes of investigation.

Accurate classification of ego states is needed in determining the stimulus-response transactions of people. The need for further investigation and measurement of ego states has increased along with the wider application of transactional analytic treatment methods. Determining the relationship of ego states to other psychological variables promises to broaden the perspective of transactional analytic psychology and other systems of personality and psychotherapy as well. The possibility of a complementary relationship between transactional analysis and other systems holds promise for the modification and further development of all systems for greater understanding of behavior.

In situations where transactional analysis is being used as a method of treatment, the need for an objective instrument to measure change in ego states has been indicated (Jesness, Loehr, McCormick and Wedge, 1968). The present research will involve the construction and validation of such an instrument.

The Ego State Inventory

The ESI is a booklet of cartoons depicting various

social situations with people interacting (see Appendix A). In each cartoon there is a stimulus person who makes a comment or asks a question as an (A) would make. The respondent in the cartoon has a blank balloon or encircled space over his head for his comment. The subject is provided with five choices to fill into the respondent's empty balloon. These choices are statements supplied by the experimenter which have been chosen to represent a typical statement which might be made in that social situation by either a (PP), (NP), (A), (AC) or (RC). The subject chooses one of the responses which he feels would fit into the balloon and marks his answer on a separate answer sheet. From the subjects' answer sheets it is possible to obtain a score for each subject on each of the five ego states.

Group Characteristics Related to Ego States

The thought that personality needs play an important part in occupational choice has been advanced for some time (Rappaport, 1949; Ginzberg, Ginzburg, Axelrad and Herma, 1951). Most researchers in the area of occupational psychology have found that there is some correlation between personality and choice of work. Roe (1956) states,

> Although the evidence is not extensive, there nevertheless seems to be no doubt that some specialized occupations, at least, do attract persons who resemble each other in some personality characteristics (p. 80).

Super (1957) makes the following statement regarding the

relationship between personality and vocational development.

> It seems possible that, if occupations are sufficiently narrowly and precisely defined, for example in terms of functional specialties within an occupation, significant personality differences in occupational groups may be found. Perhaps some will be found that are so highly structured that only individuals with certain traits are successful or satisfied in them . . . (pp. 240-241).

In investigating ego state as a personality variable the question arises, are particular ego states salient in groups, i.e., are some groups comprised of individuals with a predominantly "constant" ego state? One of the tasks which would evolve from this line of reasoning, then, would be to administer the ESI to various occupational groups to determine whether it would discriminate among those groups which appear to be composed of individuals who are closest to one of the constant ego states. Five existing groups were selected to serve as criterion groups for the construct validation of the ESI. Two criteria were used in selecting groups which would be most likely to contain individuals with particular constant ego states. These criteria were: research which suggested group characteristics similar to the ego state formulations, and the feasibility of using such groups for research purposes. One group was selected for each of the five ego states investigated.

Policemen. One of the existing groups in society which appears to include the (PP) ego state classification

is that of policemen. Policemen have been described as being sensitive to insult and striking out vigorously (Black and Labes, 1967) while advocating a "get tough" policy with criminals (Jeffery, 1961). Reiss and Bordua (1967) quote one police administrator thusly, "The D.A. is satisfied with finding him guilty. But police want him punished. They become outraged when the results of their work is ignored" (p. 37).

Investigation of the group structure and personalities of policemen has yielded several pronounced characteristics. Westley (1964) in an intensive sociological study of an urban police force found that the structure of the police organization is based on a quasi-military hierarchy, and as in the military a policeman considers himself on duty twenty-four hours a day. He describes them as considering policing more as a way of life than a job. His subjects felt themselves to be an out-group in society and tended to socialize with other policemen which produced the emergence of solidarity and an in-group character. Westley also states that, "The unusual quality of policing as an occupation is its use of violence in support of occupational ends" (p. 307). Many policemen in his study said that it was all right to rough people up if they were behaving in such a way as to make the public lose respect for the police. Thirty-seven percent of the policemen interviewed believed it was legitimate to use

violence to coerce respect. Westley (1953) reports,

> The policeman uses violence illegally because such usage is seen as just, acceptable, and at times, expected by his colleague groups and because it constitutes an effective means for solving problems in obtaining status and self esteem which policemen as policemen have in common (p. 41).

Sterne (1960) reported findings that policemen scored highest on a measure of the need to direct others and preferred not to avoid conflict more than other occupational groups tested.

In a study of law enforcement in eight communities Wilson (1968) found that policemen "almost always acted, and said later that they had acted, in such a way as to show immediately 'who was boss'" (p. 33). The policemen interviewed were also concerned with "impropriety". Many policemen saw teenagers dressed in an eccentric manner, young people in a flashy car talking loudly to other young people on the curb or interracial couples as individuals who were displaying unconventional and improper behavior. Reiss (1968) in discussing the professionalization of the police concludes that when confronted by nonconforming citizens, the human relations model of police behavior gives way to generally punitive sanctions. Turner (1968) had made an extensive compilation of incidents of illegal police violence.

The police then, have been included as one of the validation groups for this study. Because of the social

definition of their occupation and perhaps personal inclination toward that occupation, it is predicted that policemen will score higher on the (PP) scale of the ESI than the other groups tested.

Catholic Sisters. Representatives of this group appear to show a predominance of Nurturing Parent. They are in a social order in which service, understanding and solace are encouraged and rewarded. Healy (1967) has described them as sociable, warm, helpful, concerned about others and patient. In an extensive study of motivational patterns of Catholic sisters Jean (1970) found several characteristics common to all her subjects, from the novice to the superior. The sisters were people oriented and interested in aiding the distressed. Also common were the needs to serve and protect others and provide sympathetic aid. The sisters also expressed needs to establish friendships with others especially in a nurturing or consoling capacity. The foregoing suggests that Catholic sisters will score highest on the (NP) scale of the ESI.

Computer Programmers. As the Adult has been described as a computer, it follows logically that a group that has chosen to work with computers as a vocation might score high on the (A) in the ESI. The information that is available on computer programmers supports this assumption. Computer programmers have been found to obtain high scores

on achievement, order and autonomy functions (Upshall and Riland, 1958).

In a study of the vocational interests of a large number of computer programmers Perry and Cannon (1967) found that an interest in problem and puzzle solving activities was one of the most striking characteristics of programmers. This interest also extended to mental, mathematical and mechanical problem solving.

Riland (1970) reports results in which two personality variables were found to significantly predict success in programming. These were a need for order and a need to endure tasks until they were successfully completed.

In attempting to determine the job performance characteristics of a computer programmer a group of computer experts offered the following description:

> He is quite intelligent and his thinking is analytical, imaginative and flexible. He views each problem as a challenging mental exercise and attacks it from many angles with much enthusiasm . . . . He is persistent and follows through until his program is running efficiently (Rush, 1959, p. 41).

This description is also characteristic of the function of the (A), and therefore, it is predicted that computer programmers will score highest on the (A) scale of the ESI.

Student Nurses. A composite picture of the research which has been conducted on student nurses indicates that conformity and subserviance are two characteristics which

are common to that group (Michael, Haney and Gershon, 1963; Super, 1957; Navran and Stauffacher, 1957). Levitt, Lubin and Zuckerman (1962) in their work with student nurses describe them as being low in autonomy, dominance, aggression and high in abasement.

Perhaps the precedent for these and similar findings was set by the founder of modern nursing Florence Nightingale who established two principles in the training of nurses which have persisted.

1. That nurses should have their technical training in hospitals specially organized for that purpose.

2. That they should live in a house fit to form their moral life and discipline (Cook, 1913).

Rosenburg and Fuller (1957) describe student nurses as having been "taught how to walk, how to dress, how to act, how to think, but not how to be" (p. 29). They also found in their subjects that initiative and incentive had been largely inhibited by a mass of 'accepted procedure' and that the results were indecision and passivity. "Good nurses" were judged to be those who were restrained and subordinate to doctors, supervisors and patients. Stein (1967) also reports that the training of student nurses encourages subserviance and attempts to inhibit deviancy. Schedules are strict and disciplinary action is used as a means of control. The most outstanding personality characteristics as suggested by the above research correspond

most closely with the Adaptive Child, and therefore, it is predicted that student nurses will obtain the highest scores on the (AC) scale of the ESI.

Juvenile Delinquents. Based on a review of the literature on juvenile delinquency Coleman (1964) reports that the great majority of delinquents share such personality characteristics as impulsiveness, defiance and resentfulness. "In essence, these individuals are . . . largely at the mercy of their uncontrolled impulses" (p. 371). Sarbin and Jones (1955) found that on perceptual-cognitive tasks delinquents differed significantly from controls in that they were not as realistic and made less accurate evaluations. They were also more impulsive and variable in their response to conflicting or ambiguous cues.

In their study of the personality of juvenile delinquents Pierson and Kelly (1963) give their results as follows, "To summarize the findings, the delinquents of this sample show rebellion which finds expression in an adventurous, frivolous, carefree extraversion . . ." (p. 190). In a study of differences between 500 delinquents and 500 non-delinquents Glueck and Glueck (1970) found the delinquents to be "more energetic, impulsive, aggressive, extroverted and assertive and less submissive to authority" (p. 82). This evidence suggests that juvenile delinquents may have a high degree of Rebellious Child, and it is predicted that

highest (RC) scores on the ESI will be found in the juvenile delinquent group.

Related Personality Characteristics

In the construct validation of a personality measure another frequently employed approach is determining the relationship of the new measure with those which have preceded it and have accumulated a validation literature. This is the suggested procedure in the Standards for Educational and Psychological Tests and Manuals (1966) and provide the procedural guidelines for the present study. Various measures of personality have been selected for the validation of the ESI, and their theoretical relevance is given below.

Dogmatism. Rokeach (1954) has defined dogmatism as:

> (a) a relatively closed cognitive organization of beliefs and disbeliefs about reality,
> (b) organized around a central set of beliefs about absolute authority which, in turn,
> (c) provides a framework for intolerance for others (p. 195).

Significant relationships have been found between dogmatism and other personality characteristics. Subjects high in dogmatism were more likely to be intolerant, inflexible and insecure (Korn and Gidden, 1964). Other researchers (Vacchiano, Strauss and Schiffman, 1968) found a significant positive relationship between dogmatism and

avoidance of change in behavior and environment, conformity, restraint and conservatism.

The above description of the construct of dogmatism corresponds most closely with the (PP) ego state under investigation in the present study. Adjectives such as dogmatic, rigid, authoritative and prohibitive have been used to delineate (PP) behaviors. For purposes of comparison the Rokeach Dogmatism Scale (Form E), hereafter to be referred to as the (DS), was chosen to measure dogmatism and its relation to the (PP) scale of the ESI.

Irrationality. The term irrationality as used in this research has its origin in the work of Ellis (1962). Ellis feels that emotional and psychological disturbance is a result of an individual's illogical and irrational thinking. He states that there are major illogical ideas or philosophies in our society which are held by people and which inevitably lead them into self-defeating behavior and neurosis. Ellis (1958) considers man to be very suggestible, especially during childhood, and therefore susceptible to indoctrination by his society with irrational and erroneous ideas. The following are two examples from his list of eleven irrational ideas.

> Irrational Idea No. 1: The idea that it is a dire necessity for an adult human being to be loved or approved by virtually every significant other person in his community.

> Irrational Idea No. 2: The idea that there is invariably a right, precise, and perfect solution to human problems and that it is catastrophic if this perfect solution is not found (Ellis, 1962, pp. 61, 86-87).

The goal of psychotherapy in Ellis' system (Ellis and Harper, 1961) is for man to develop his capacity to think rationally and logically and thereby avoid being burdened with intense guilt, anxiety and other negative emotions.

Since it has been hypothesized that the business of the (A) ego state to assess reality in an objective and rational manner it appears that the (A) ego state and Ellis' notion of the rational process in man are concepts justifying comparison. Use of the Adult Irrational Ideas Inventory (AIII), which will be discussed later, will provide a means for comparing irrationality to the (A) scale of the ESI.

Other Personality Variables. In determining the relation of ESI scores to other relevant psychological variables an instrument was needed which would provide various measures of personalities of "normal" people. The California Psychological Inventory (CPI) was chosen as it is an instrument which appears to be measuring personality concepts similar to those of the ESI. The CPI is a paper and pencil personality inventory which yields a personality profile based on eighteen different scales. Listed below are those scales about which hypotheses will be made in

relation to the different ego states of the ESI.

1. Femininity (Fe) -- High scorers tend to be seen as appreciative, patient, helpful, gentle, moderate, persevering and sincere; as being respectful and accepting of others; and as behaving in a conscientious and sympathetic way.

2. Good impression (Gi) -- High scorers tend to be seen as co-operative, enterprising, outgoing, sociable, warm, and helpful; as being concerned with making a good impression; and as being diligent and persistent.

3. Intellectual efficiency (Ie) -- High scorers tend to be seen as efficient, clear thinking, capable, intelligent, progressive, planful, thorough and resourceful; as being alert and well informed; and as placing a high value on cognitive and intellectual matters.

4. Responsibility (Re) -- Low scorers tend to be seen as immature, moody, lazy, awkward, changeable and disbelieving; as being influenced by personal bias, spite, and dogmatism; and as under-controlled and impulsive in behavior.

5. Self-control (Sc) -- Low scorers tend to be seen as impulsive, shrewd, excitable, irritable, self centered and uninhibited; as being aggressive and assertive; and as over-emphasizing personal pleasure and self-gain.

6. Femininity (Fe) -- Low scorers tend to be seen as outgoing, hard-headed, ambitious, masculine, active, robust, and restless; as being manipulative and opportunistic in dealing with others; blunt and direct in thinking and action; and impatient with delay, indecision and reflection.

7. Socialization (So) -- Low scorers tend to be seen as defensive, demanding, opinionated, resentful, stubborn, headstrong, rebellious, and undependable; as being guileful and deceitful in dealing with others; and as given to excess, exhibition, and ostentation in their behavior.

8. Achievement via independence (Ai) -- Low scorers tend to be seen as inhibited, anxious, cautious, dissatisfied, dull, and wary; as being submissive and compliant before authority; and as lacking in self-insight and self-understanding.

9. Psychological mindedness (Py) -- Low scorers tend to be seen as apathetic, peaceable, serious, cautious, and unassuming; as being slow and deliberate in tempo; and as being overly conforming and conventional.

10. Sociability (Sy) -- Low scorers tend to be seen as awkward, conventional, quiet, submissive, and unassuming; as being detached and passive in attitude; and as being suggestible and overly influenced by others' reactions and opinions (Gough, 1969, pp. 12-13).

Hypotheses

In investigating the construct validity of the ESI two strategies were employed. The hypotheses produced by each will be listed separately. The following predictions were made about the ability of the ESI to discriminate among the criterion groups.

A. The highest (PP) scores on the ESI will be found among the police.

B. The highest (NP) scores on the ESI will be found among Catholic Sisters.

C. The highest (A) scores on the ESI will be found among computer programmers.

D. The highest (AC) scores on the ESI will be found among student nurses.

E. The highest (RC) scores on the ESI will be found among juvenile delinquents.

Group and Predictions of Highest ESI Scores

Policemen	(PP)
Catholic Sisters	(NP)
Computer Programmers	(A)
Student Nurses	(AC)
Juvenile Delinquents	(RC)

The other strategy of assessing construct validity, determining the relation of ESI scores to scores on other existing psychological measures yielded the following predictions.

1. There will be a positive correlation between scores on the Dogmatism Scale and the (PP) scale of the ESI.

2. There will be a negative correlation between scores on the Adult Irrational Ideas Inventory and the (A) scale of the ESI.

3. There will be a positive correlation between the Femininity scale of the CPI and the (NP) scale of the ESI.

4. There will be a positive correlation between the Good Impression scale of the CPI and the (NP) scale of the ESI.

5. There will be a positive correlation between the Intellectual Efficiency scale of the CPI and the (A) scale of the ESI.

6. There will be a negative correlation between the Responsibility scale of the CPI and the (RC) scale of the ESI.

7. There will be a negative correlation between the Self-control scale of the CPI and the (RC) scale of the ESI.

8. There will be a negative correlation between the Femininity scale of the CPI and the (RC) scale of the ESI.

9. There will be a negative correlation between the Socialization scale of the CPI and the (RC) scale of the ESI.

10. There will be a negative correlation between the Achievement via Independence scale of the CPI and the (AC) scale of the ESI.

11. There will be a negative correlation between the Psychological Mindedness scale of the CPI and the (AC) scale of the ESI.

12. There will be a negative correlation between the Sociability scale of the CPI and the (AC) scale of the ESI.

Predicted Correlation Directions for Other Measures and the ESI

Dogmatism Scale - (PP)	Positive
Adult Irrational Ideas Inventory - (A)	Negative
Femininity - (NP)	Positive
Good Impression - (NP)	Positive
Intellectual Efficiency - (A)	Positive
Responsibility - (RC)	Negative
Self-control - (RC)	Negative
Femininity - (RC)	Negative
Socialization - (RC)	Negative
Achievement via Independence - (AC)	Negative
Psychological Mindedness - (AC)	Negative
Sociability - (AC)	Negative

CHAPTER II

CONSTRUCTION OF THE EGO STATE INVENTORY

Preparation of Items

In devising the format for an objectively scored instrument to measure ego states the following requirements were considered.

1. The stimuli should be readily identifiable by subjects, thereby increasing the probability of activating subjects' ego states.

2. The stimuli should encompass a wide variety of social situations in which subjects are offered a wide choice of responses.

3. The task should optimally be intrinsically motivating and maintain the interest of the subjects.

The format to satisfy these and other conditions was that of cartoon drawings depicting two characters transacting in a variety of social situations.

In Phase I 56 cartoon items were drawn with blank balloons for both the stimulus and respondent characters in each cartoon. This phase was initiated to obtain stimuli and responses for the 56 cartoon items. These items were reproduced in the form of a booklet and given to subjects with these instructions.

> In this booklet there is a series of pictures in which there are two people talking to each other. The person on the left always speaks first, and the person on the right replies. In the blank space to the right of each picture write what you

imagine the first person would say and then what the second person would say.

This phase of the ESI was then administered to the subjects listed in Table 1.

TABLE 1

SUBJECTS IN PHASE I CONSTRUCTION OF ESI
(N=77)

Group	Male	Female
Inmates, Ft. Saskatchewan Jail, Edmonton	20	10
Sisters of Providence, Edmonton		8
Undergraduate students, North Texas State University	18	8
Graduate Students, University of Alberta	5	2
Secretaries, Glenrose Hospital, Edmonton		6
Total	43	34

The inmates and sisters groups were selected by the experimenter in hopes that they would produce responses of a (RC) and (NP) nature respectively. The other three groups were selected in order to obtain a further variety of responses. All subjects were volunteers.

In Phase II from the pool of stimuli collected in Phase I the experimenter selected an (A) stimulus for each of the 56 items. The purpose of the Phase II operation was

to accumulate a larger pool of responses for the 56 items. The ESI with the (A) stimulus for each item was administered to subjects (see Table 2) with instructions to fill in only the blank response balloon for each item.

TABLE 2

SUBJECTS IN PHASE II CONSTRUCTION OF ESI
(N=50)

Group	Male	Female
Students, Northern Alberta Institute of Technology	13	17
Undergraduates, University of Alberta	8	12
Total	21	29

In Phase III the total responses collected from Phases I and II were combined into a response pool for each ego state for each of the 56 items. In addition to this response pool a team of graduate students who had been instructed in the discrimination and analysis of ego states were engaged to select and construct (PP), (NP), (A), (RC) and (AC) responses for each of the 56 items. At this stage four items were dropped due to difficulty in obtaining satisfactory responses representative of the five ego states for the item. The experimenter selected the three most characteristic responses to represent each ego state for the remaining 52 items.

Validity Considerations

Content Validity. The inventory as it emerged from Phase III was submitted individually to three experts in transactional analytic theory. The judges were Dr. John Dusay, a psychiatrist at Langley Porter Neuropsychiatric Institute, San Francisco, California; Dr. Leonard Campos, a psychologist at O. H. Close School for Boys, Stockton, California, and Mr. Paul McCormick, the transactional analysis project director at O. H. Close School for Boys. All are clinical members of the International Transactional Analysis Association and have had extensive experience in the theory and practice of transactional analysis.

These judges were given the 52 items and asked to select the most characteristic one of the three responses provided them for each ego state. The ego states for each item included in the final version of the ESI were those on which two or more of the judges agreed.

Construct Validity. Two approaches were taken in the construct validation of the ESI. The ESI was administered to various existing groups to determine if there are common "constant" ego states in the personalities of the people which comprise a respective group. The primary question then, was can the ESI discriminate among the groups on the basis of ego states, i.e., is there a constant ego state for a particular group. The groups chosen, their

characteristics, and their relevance to the validation of the ESI have been given earlier in detail.

The other method used in validating the ESI was determining the relationship between ESI scores on the (PP), (NP), (A), (RC) and (AC) ego states and scores on existing psychological measures which have a validation literature. The psychological instruments used were the Dogmatism Scale, Adult Irrational Ideas Inventory and California Psychological Inventory. Predictions were made regarding the type of relation between the various ego states and scores on the above measures.

Scoring Procedure

On the first page of the ESI (see Appendix A) subjects are instructed to answer the items on a separate machine scored answer sheet (Appendix B). The answer sheets employed may either be optically machine scored or hand scored using five stencils, one for each of the ego states. The raw scores are totalled for each ego state which has a possible range of from 0 to 52. Each subject receives a score for each of the five ego states. A high score on any one ego state indicates a high degree of presence of that respective ego state, and low scores indicate an absence of the ego state. Time required to complete the ESI ranges between twenty and thirty minutes.

Instruments

Dogmatism Scale. The Dogmatism Scale (DS) (see Appendix C) is considered by Rokeach (1960) to be first and foremost an instrument to measure the amount of open or closed mindedness characteristic of each individual. The DS contains 40 items on which subjects respond by indicating whether they agree (+1, +2, +3) or disagree (-1, -2, -3) with the statements. Scores are summed, with high DS scores indicating closed mindedness and low scores open mindedness. Validity studies are extensive and have been reviewed by Vacchiano, Strauss and Hochmann (1969). Estimates of reliability range between .68 and .93 (Rokeach, 1960).

Adult Irrational Ideas Inventory. The Adult Irrational Ideas Inventory (AIII) (Davies, 1970) (see Appendix D) is an adult modification of the Irrational Ideas Inventory for adolescents constructed and validated by Zingle (1965). The theoretical base for both inventories is Ellis' (1962) conception of irrationality. The AIII contains 60 statements on which subjects are asked to check their amount of agreement: I strongly agree; I agree; Undecided; I disagree; I strongly disagree. Scores are weighted 1 through 5 in descending amount of agreement with the exception of 8 items in which the scoring order is reversed. High scores (disagreement) indicate rationality and low scores (agreement) irrationality. Validity and reliability

research on the AIII is limited, but Davies (1970) reports a validity coefficient of .70 and reliability coefficients of .74 to .78.

California Psychological Inventory. The California Psychological Inventory (CPI) was created by Gough (1969) to "forecast behavior and identify individuals who are perceived in characteristic ways" (p. 8). The CPI contains 480 items which are answered either "true" or "false" and provides standard scores on eighteen scales. The higher that scores are above the mean on the different scales, the greater is the probability that the individual is both socially and intellectually effective. When scores go far below the mean it indicates dysfunctional personality patterns and difficulty in interpersonal adjustment. The CPI is a widely used measure of personality and considerable data on its validity has been compiled by Gough (1969). The test-retest reliability coefficients for the CPI scales employed in the present study range between .48 and .86.

Subjects

Relevant information regarding samples and tests administered is summarized in Table 3. All subjects tested were tested in groups, by the experimenter, and participation was voluntary.

TABLE 3

DESCRIPTION OF SUBJECTS AND TESTS ADMINISTERED

Sample	N	Test(s)
Policemen	87	ESI, DS, AIII*
Catholic Sisters	39	ESI, DS, AIII*
Computer Programmers	28	ESI
Student Nurses	70	ESI
Juvenile Delinquents	66	ESI
Graduate Students	46	ESI, DS, AIII*
Undergraduate Students (1)	78	ESI, CPI
Undergraduate Students (2)	36	ESI, CPI
Total	450	

*Subjects in these groups did not complete all tests listed.

Policemen. Eighty-seven deputy sheriffs from the San Joaquin County Sheriffs Department, Stockton, California participated in the study. All were line officers actively engaged in law enforcement duties.

Catholic Sisters. The sisters who participated were on a temporary retreat at the College of Our Lady of Mercy, Auburn, California and were drawn from various localities throughout Northern California.

Computer Programmers. The programmers tested were advanced students in computer programming at the Electronic Computer Programming Institute, Sacramento, California. All were engaged in a full course of study in computer programming.

Student Nurses. These 70 subjects were full-time second year students in the RN program at Sacramento City College. Their course of study included classroom work as well as duty in one of several hospitals in Sacramento.

Juvenile Delinquents. These subjects were tested during their incarceration at the O. H. Close School for Boys, California Youth Authority, Stockton, California. All subjects had been judged delinquent by a court and were serving sentences.

Graduate Students. Testing of these subjects was conducted in a graduate class in reading, Department of Education, Sacramento State College. The majority of the students were elementary public school teachers.

Undergraduate Students (1). This group of students (N=78) were enrolled in a course in counseling and guidance, Department of Educational Psychology, University of Alberta during the winter term of 1970.

Undergraduate Students (2). These 36 subjects were enrolled in a course in theories of learning, Department of Educational Psychology, University of Alberta during the winter term of 1970.

Reliability

When determining the reliability of a test,

researchers (Cronbach, 1960; Helmstadter, 1964; and Ferguson, 1966) suggest obtaining both the internal consistency and stability correlation coefficients. The internal consistency of a test is the degree to which its items are homogeneous or equivalent. The Kuder-Richardson Formula 21 (KR 21) provides an estimate of the internal consistency or equivalence and is equal to the average of all possible split-half reliability coefficients.

The following procedure is used to determine the stability of an instrument: the initial administration; an interval of time; and then the second administration. Computation of a Pearson product-moment correlation coefficient using the first and second administration scores yields the estimate of stability for the instrument. In the present research both internal consistency and stability measures of reliability will be computed for each of the five ego states in the ESI.

CHAPTER III

RESULTS

In determining the construct validity of the ESI numerous predictions were made about the presence of certain ego states in groups and the statistical relation of the ESI scales to other psychological measures. In order to test whether the predictions regarding ESI scores and the criterion groups were confirmed, a Duncan's Range Test (Edwards, 1965) was computed on the ESI mean scores for the five groups. The results are given in Table 4.

TABLE 4

SUMMARY, DUNCAN'S RANGE TEST ON MEANS OF ESI SCORES FOR THE FIVE CRITERION GROUPS

	Group Means				
(PP)	Delqts	Police	Nurses	Sisters	Progms
	6.56**	2.50	2.35	1.94	1.39
(NP)	Sisters	Delqts	Progms	Police	Nurses
	11.84	11.46	11.42	10.96	10.14
(A)	Nurses	Progms	Police	Sisters	Delqts
	27.40	25.03	24.98	23.76	15.34**
(RC)	Delqts	Police	Nurses	Sisters	Progms
	7.71**	2.74	2.67	1.97	1.89
(AC)	Sisters	Progms	Police	Delqts	Nurses
	12.30**	11.89*	10.67	10.62	9.40

*Differences scored by a single star (*) are significant to the .05 level, those with a double star (**) to the .01 level. All differences are considered with respect to the range of means between them.

Hypothesis A. The highest (PP) scores on the ESI will be found among the police.

Findings. Juvenile delinquents scored highest on the (PP) scale of the ESI and hence the prediction was not confirmed. The mean for delinquents was significantly different ($< .01$) from the other group means. The prediction that policemen would score highest on (PP) was not substantiated, however, policemen were the second highest scoring group on the (PP) scale.

Hypothesis B. The highest (NP) scores on the ESI will be found among Catholic Sisters.

Findings. These results did fall in the predicted direction. The sisters were the highest scorers on (NP), but the results did not reach the level of statistical significance.

Hypothesis C. The highest (A) scores on the ESI will be found among computer programmers.

Findings. The group means for the (A) scale were not in the predicted direction. The highest scoring group on (A) were the student nurses. Means for computer programmers were second highest, however, after student nurses.

Hypothesis D. The highest (RC) scores on the ESI will be found among juvenile delinquents.

Findings. This hypothesis was confirmed at the .01 level of significance. The mean score for delinquents on (RC) was significantly higher than any of the means for the other groups.

Hypothesis E. The highest (AC) scores on the ESI will be found among student nurses.

Findings. This prediction was not confirmed. The group with the highest mean on (AC) were the sisters whose mean was significantly higher (< .01) than any of the other group means. Student nurses had the lowest group mean on (AC).

The second approach to the construct validity involved correlating ESI scores with other psychological measures. These results have been divided into separate tables.

TABLE 5

SUMMARY OF CORRELATION COEFFICIENTS FOR ESI SCALES AND DS AND AIII MEASURES

Group	(PP) and DS	(A) and AIII
Graduate Students	.13	.05
Sisters	.28*	.26*
Police	.00	.07

*Significant at the .05 level.

Hypothesis 1. There will be a positive correlation between scores on the Dogmatism Scale and (PP) scale of the ESI.

Findings. The correlation between DS and (PP) for the graduate students group was .13, for the sisters .28 (significant at the .05 level) and for the police .00. Thus in two of the three groups tested for the relationship between DS and (PP) the correlations were in the predicted direction one reaching significance. There was no correlation between the two variables for the police group.

Hypothesis 2. There will be a negative correlation between scores on the Adult Irrational Ideas Inventory and the (A) scale of the ESI.

Findings. Results of the graduate students and police group comparison on these two variables yielded small positive correlations, .05 and .07 respectively, which were not in the predicted direction. For the sisters a significant correlation of .26 was obtained in the unpredicted direction. The hypothesis that there would be a negative relationship between these two variables was not supported.

The results for hypotheses 3 through 12 are given in Table 6.

Hypothesis 3. There will be a positive correlation between the Femininity scale of the CPI and the (NP) scale of the ESI.

Findings. For the first group of undergraduate students tested the correlation was low but was in the predicted direction. For the second group of students the correlation was also low but not in the predicted direction.

TABLE 6

SUMMARY OF CORRELATION COEFFICIENTS FOR ESI SCALES AND CPI SCALES

Scales	Undergrad. Students (1)	Undergrad. Students (2)
3. (NP) and Fe	.01	-.06
4. (NP) and Gi	.19*	.07
5. (A) and Ie	.11	.03
6. (RC) and Re	-.11	-.16
7. (RC) and Sc	-.18*	-.02
8. (RC) and Fe	-.13	.11
9. (RC) and So	-.08	-.12
10. (AC) and Ai	-.04	-.25
11. (AC) and Py	.02	-.20
12. (AC) and Sy	-.08	-.24

*Significant at the .05 level.

Hypothesis 4. There will be a positive correlation between the Good Impression scale of the CPI and the (NP) scale of the ESI.

Findings. This hypothesis was confirmed for both groups of subjects tested. Only the correlation coefficient for the first group of undergraduate students reached the significance level ($< .05$).

Hypothesis 5. There will be a positive correlation between the Intellectual Efficiency scale of the CPI and the (A) scale of the ESI.

Findings. Coefficients for both groups were in the predicted direction but did not reach statistical significance.

Hypothesis 6. There will be a negative correlation between the Responsibility scale of the CPI and the (RC) scale of the ESI.

Findings. Negative correlations were obtained for both groups tested and the prediction was confirmed. These coefficients, however, were not statistically significant.

Hypothesis 7. There will be a negative correlation between the Self-control scale of the CPI and the (RC) scale of the ESI.

Findings. Both coefficients were in the predicted direction for this hypothesis, and the coefficient for the first group reached statistical significance at the .05 level.

Hypothesis 8. There will be a negative correlation between the Femininity scale of the CPI and the (RC) scale of the ESI.

Findings. For this hypothesis the results were mixed. For the first group the coefficient was in the

predicted direction and almost reached the significance level, but for the second group the coefficient was positive or in the unpredicted direction.

Hypothesis 9. There will be a negative correlation between the Socialization scale of the CPI and the (RC) scale of the ESI.

Findings. These coefficients were in the predicted direction for both groups.

Hypothesis 10. There will be a negative correlation between the Achievement via Independence scale of the CPI and the (AC) scale of the ESI.

Findings. These coefficients were in the predicted direction for both the first and second groups.

Hypothesis 11. There will be a negative correlation between the Psychological Mindedness scale of the CPI and the (AC) scale of the ESI.

Findings. For the first group the results were in the unpredicted direction. In the second group the coefficient was in the predicted direction.

Hypothesis 12. There will be a negative correlation between the Sociability scale of the CPI and the (AC) scale of the ESI.

Findings. The coefficients for both groups were in the predicted direction for this hypothesis.

For the hypotheses 3 through 12 involving the CPI and ESI this summary can be made. There were ten predictions made and two groups were tested to measure the validity of these predictions. This amounted to twenty possible correlation coefficients. Out of these twenty there were seventeen confirmed predictions as to the direction of the correlation. Two of these seventeen were statistically significant at the .05 level. The remaining three coefficients were in the opposite from predicted direction but did not reach significance levels.

Reliability

Two types of reliability coefficients were computed; those for internal consistency or equivalence (KR 21) and those for stability or test-retest reliability. The results of the internal consistency reliability are given in Table 7.

TABLE 7

KUDER-RICHARDSON (21) RELIABILITY CORRELATION COEFFICIENTS

Group	(PP)	(NP)	(A)	(RC)	(AC)
Sisters	.63	.97	.73	.59	.50
Police	.72	.97	.98	.90	.36
Programmers	.73	.53	.96	.81	.88
Delinquents	.86	.94	.83	.93	.66
Nurses	.83	.56	.92	.80	.45
Average	.75	.79	.88	.80	.57

Findings. KR 21 reliability coefficients were computed for each of the ego states for each of the five groups tested which yielded average coefficients of (PP) .75, (NP) .79, (A) .88, (RC) .80 and (AC) .57.

For the test-retest estimate the undergraduate students (2) were given the ESI with the standard instructions after an interval of seven weeks had elapsed. Twenty-nine subjects from this group were available for retesting from the original thirty-six tested. The results of the test-retest estimate are given in Table 8.

TABLE 8

SUMMARY OF TEST-RETEST CORRELATION COEFFICIENTS FOR UNDERGRADUATE STUDENTS (2)

(PP)	(NP)	(A)	(RC)	(AC)
.73	.67	.68	.47	.55

Findings. Test-retest correlation coefficients using the Pearson product-moment formula ranged in magnitude from .47 for the (RC) to .73 for the (PP).

Other Variables

An investigation of the literature did not suggest any hypotheses regarding the relationship between type of ego state and the variables age, sex and educational level. Although no specific predictions were made in the present

study with regard to these variables it was decided that a post hoc analysis of their relation to ego states might provide some heuristic value. The graduate student, and two undergraduate student groups were used in the analysis. Results are given in Table 9.

TABLE 9

SUMMARY OF CORRELATION COEFFICIENTS FOR ESI SCORES AND AGE, SEX AND EDUCATION VARIABLES (N=160)

Variables	(PP)	(NP)	(A)	(RC)	(AC)
Age	-.07	-.04	-.06	.06	.14
Sex	-.14	-.15	.15	-.01	.03
Education	-.21	-.02	.12	-.16	.05

Findings. For the variable of age the correlations range from -.07 to .14. The range for the variable of sex is -.15 to .15. The coefficients for the education variable range from -.21 to .12. All of these coefficients are far from the level of statistical significance.

In Figure 6 the means of the ego states for each of the criterion groups have been plotted for easier recognition of the group profiles.

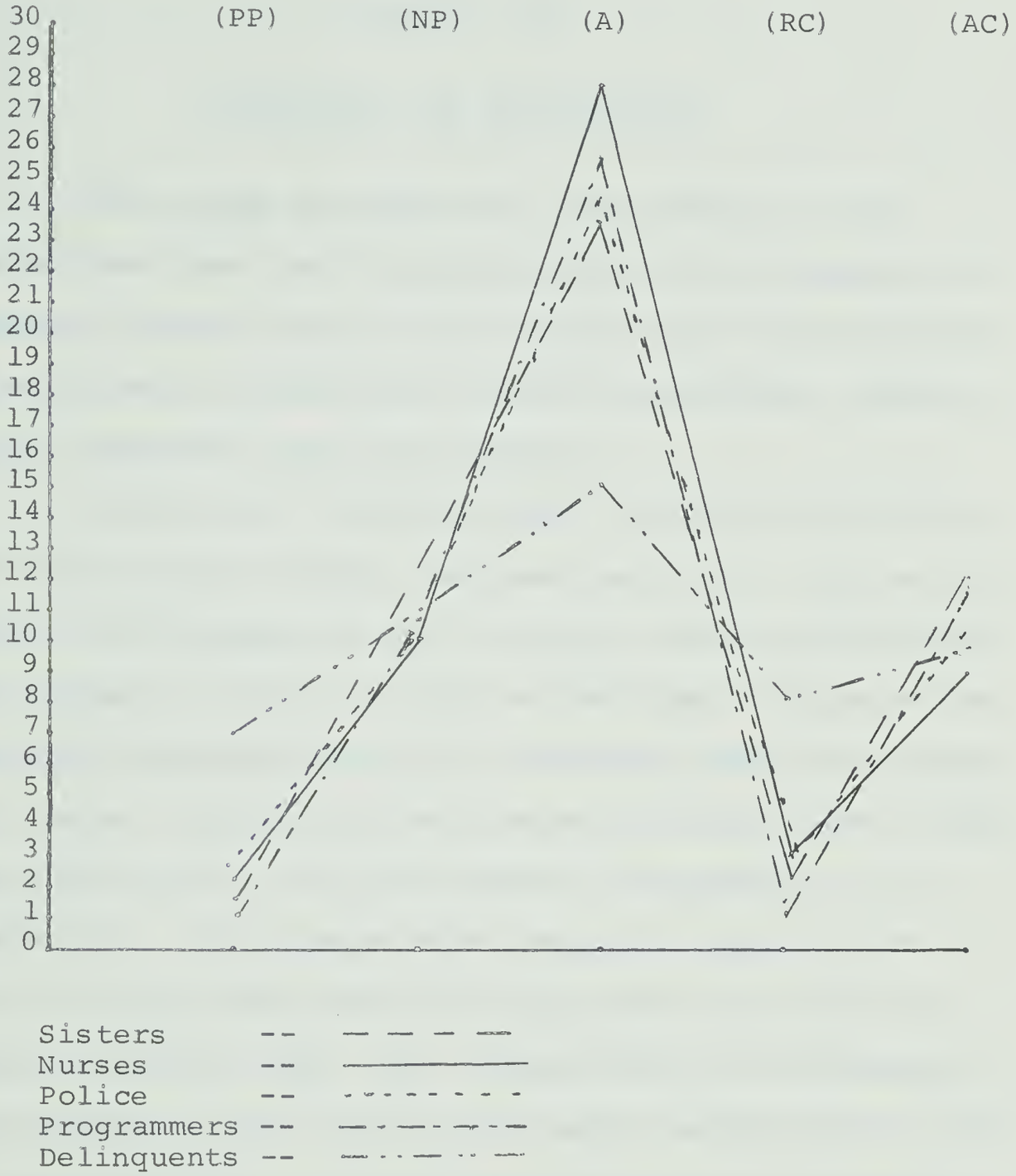


FIGURE 6

ESI CRITERION GROUP PROFILES

CHAPTER IV

DISCUSSION AND IMPLICATIONS

This study involved the investigation of the concept ego state and the construction of an inventory to measure it objectively. The inventory was then validated using content and construct validity procedures. Reliability estimates were also computed.

Of the five hypotheses made regarding ESI scores and the criterion groups, two were confirmed. The Catholic Sisters were highest on (NP), and the juvenile delinquents were highest on (RC) ($< .01$) as predicted. In two of the remaining three hypotheses the predicted high score groups were second highest for their respective ego states. These were the police -- (PP) and computer programmer -- (A) predictions. The groups which actually scored highest on these two ego states were the delinquents (PP) and the Catholic Sisters (AC). The finding that the delinquents were highest on (PP) can be more easily understood in light of research which has investigated the actual parents of delinquents. The family background of delinquents has quite often been found to be disturbed with parental rejection, inconsistent discipline and various forms of pathogenic family patterns (Ainsworth, 1962). Bandura and Walter (1959) found that fathers of delinquents typically used physical punitive methods of discipline. This kind

of experience emanating mainly from their parents or parent substitutes then is stored in the form of ego states in the delinquents and was elicited in the form of (PP) responses by the ESI stimuli.

Although the research literature available on Catholic Sisters suggested that there was a nurturant characteristic common to them, which was confirmed in this study, they also scored highest on (AC). The literature on the personality of Catholic Sisters is not extensive, but one may speculate on the reasons for the existence of adaptive characteristics of a woman in a religious order. The regimen of daily life and the hierarchical nature of their social order provides some understanding of the high (AC) score. A finding by Peters (1942) appears to add some support to this interpretation. She found Catholic Sisters to be low in self-sufficiency and submissive.

The prediction that student nurses would be highest on (AC), was not confirmed. Instead, student nurses scored lowest on (AC). The majority of the research literature on the personality of student nurses suggests that they possess personality characteristics which appear to correspond to that of the (AC), but it was not indicated in the scores of those nurses tested in the present study. The finding that student nurses were highest in (A) may reflect the rigorous training demands placed on them, i.e., the long hours of study, memorization, drill and practical training which are

the locus of activity for the student nurse.

An examination of the profiles of the group means for the different groups provides an interesting perspective on these findings (see Figure 6). The pattern of the group profiles reveals that for four of the groups the difference in means is slight and the mean scores tend to be clustered together. However, the profile for the fifth or delinquent group is quite different from the other four. An examination of these profiles and group means suggests that the ESI is somewhat differentially sensitive to constant ego states in groups which will for convenience be called "normal", i.e., groups which are functioning in society. The ESI, however, provides its maximum discrimination power between the normal groups and the "clinical" group tested, i.e., the juvenile delinquents. The profile of the delinquents, a group which is out of the mainstream of society, was significantly different on three ego states from the four other groups. The delinquents were lower than the normals on (A) and higher than normals on (RC).

Another facet of the results that differentiates the delinquents from the other four groups is their number of crossed transactions as exhibited on their ESI scores. The ESI stimuli are (A) and therefore responses other than (A) constitute, by definition, crossed transactions in that the transactional vectors are not parallel. The findings that delinquents scored highest on the (PP) and (RC) scales

and the lowest on the (A) scale indicate that the nature of their crossed transactions are of the type which cause the most social difficulty as discussed in the introduction.

The ESI is not a test which discriminates with a high degree of accuracy on the basis of vocational classifications. Its potency and usefulness, therefore, does not lie so much in the direction of vocational psychology as it does in the direction of social and intrapersonal psychology.

The correlations between the (PP) ego state and DS (see Table 5) indicate generally that there is some overlap between the two concepts. Dogmatism does appear to be a minor component of the (PP). The (PP) scale, however, does appear to be measuring variables other than dogmatism, and further research with the (PP) should involve the isolation and investigation of these variables.

Two of the correlation coefficients obtained on the variables (A) and AIII were positive but non-significant. The third was significant but also in the opposite from predicted direction. A comprehensive explanation of these results should wait until further validation studies have been conducted on the AIII and the ESI. These findings also indicate that in validating the (A), other criteria in addition to "rationality" should be attended to. Ellis' irrational ideas may elicit emotional responses from some individuals and hence may be measuring other variables in

addition to irrationality. A comparison, therefore, of the (A) ego state with measures of more strictly cognitive function might prove enlightening in the study of the (A) ego state. General mental ability measures as well as specific ability and performance variables should be investigated to determine their relation to the (A) ego state.

The results of the CPI and ESI predictions (see Table 6) do add general support for the validation of the ESI. Seventeen out of twenty of the correlation coefficients were in the predicted direction, and two of these reached significance levels. For the three coefficients that were in the opposite from predicted direction none reached significance and each occurred in only one of the groups tested for that particular hypothesis. What these results indicate is that there are trends in the predicted directions which is a useful finding especially as it relates to the refinement of the instrument and suggests options for future validation criteria.

The reliability coefficients (see Tables 7 and 8) for internal consistency and stability are within acceptable limits (Guilford, 1965) indicating that the ESI is generally an internally consistent and stable instrument.

Age, sex and educational variables did not correlate significantly with any of the ego states. This finding suggests a wide range of applicability for the ESI.

Suggestions for Further Research

This exploratory effort into the delineation and empirical measurement of ego states has produced answers to some questions and raised others. It has given some support to the premise that ego state is a viable concept and that it is potentially measurable in an objective sense. The ESI, the first empirical instrument to attempt measurement of ego states has discriminated between a clinical group and normal groups to a highly significant degree. This finding raises in turn questions such as: what would be the ESI profiles of other clinical groups such as schizophrenics, alcoholics, etc. If future research follows this direction it may be possible to establish norms or "cutoff" scores for the ego states which discriminate normals or adjusted individuals from those with psychological or social difficulties. For the delinquent populations in correctional institutions it might be possible to derive reliable cut off scores or "rehabilitated for release" profiles on the ESI. Administering the ESI to all persons being paroled or released and then comparing their scores to the parole violation or recidivism rates would help determine if the ESI would be a useful tool in pre-release consideration and counseling.

Correlations between ESI scores and other psychological variables have, in general, been encouraging. In this particular area the need for choosing validating

instruments and criteria more selectively is recognized. When it is not possible to obtain one instrument of criterion to relate to a particular ego state the possibility of using batteries of instruments or multiple criteria should be considered.

A revision of the ESI would offer certain advantages in terms of its validity and reliability. An item-total correlational analysis would be helpful in determining which items could be deleted or modified. Larger numbers of subjects from varied groups should be used to obtain test-retest reliability coefficients, and the test-retest intervals should also be varied to provide a better estimate of the stability of the ESI.

Another approach to the validation of the ESI would be to compare patients' diagnoses by experienced clinicians to ESI profiles. This would involve clinicians choosing patients whom they felt were high or low on one or more of the five ego states and then seeing if the ESI characterized the patients in the same way.

An instrument such as the ESI has a wide variety of possibilities for use with questions that involve applied psychology in particular. A diagnostic tool such as the ESI could be used in settings such as schools, correctional institutions, hospitals, industry or wherever more information is needed about the internal psychological structure of the individual and the nature of social

transactions.

The use of the concept ego state may have useful application in academic areas. It may be possible to determine if distinct ESI profiles for "bright" students or "slow learners" exist. It would also be interesting to determine if there are profiles for teachers who are successful with these types of students. A question such as, how much (PP), (NP) or (A) does a teacher need to be effective with students and in what proportions, could be one for education research.

The area of parent-child relations is of extreme importance and the need for further investigation is suggested (Ginott, 1965; and Medinnus, 1967). Use of the ESI to discover the relations of parent and child ego states may produce new insights into parent-child communication and relations. More specifically, the question, do parents with constant ego states of one type produce children with constant ego states with another type, could be investigated. Do mothers and fathers with high amounts of (PP) produce children with high amounts of (PP), (RC) or (AC)? If the parents are high in (A) will their children be high in (A) also? These questions and related ones might be answered by means of the ESI. The findings from these kinds of studies might have broad implications for the study of the family, its structure and dynamics.

Another use of the ESI might be as a measure of

change in counseling or psychotherapy. The first administration would not only give the counselor a base line of the ego states of the individual before treatment but would provide diagnostic and perhaps prognostic information which could be drawn upon to formulate treatment hypotheses regarding that individual. The second administration of the ESI could be used to estimate change in the individual, in conjunction with other evaluative criteria. It must remain for future research to determine what proportion of the various ego states are present in the "healthy" individual.

The ESI could also be used for diagnostic and theoretic purposes by the increasing number of therapists who use transactional analysis as their method of treatment. Since the basis of transactional analytic treatment involves the diagnosis and change of ego states the ESI can provide a useful measure in the theoretical elaboration and practical application of the transactional analysis system.

Another use of the ESI could be its inclusion in a battery of tests given for diagnostic purposes. The advantage would be that the ESI might reflect certain personality variables not measured by other diagnostic instruments and would therefore contribute to a more comprehensive personality picture of the individual. However the limitations of the present validational work must be kept in mind when considering further application of the ESI.

B I B L I O G R A P H Y

BIBLIOGRAPHY

Ainsworth, M.D. The effects of maternal deprevation: a review of findings and controversy in the context of research strategy. In World Health Organization, Deprevation of maternal care: a reassessment of its effects. Geneva: WHO, 1962, 97-165.

Bandura, A. and Walter, R. H. Adolescent aggression. New York: Ronald, 1959.

Berne, E. Transactional analysis in psychotherapy. New York: Grove Press, Inc., 1961.

Berne, E. The structure and dynamics of organizations and groups. New York: Grove Press, Inc., 1963.

Berne, E. Games people play. New York: Grove Press, Inc., 1964.

Berne, E. Principles of group treatment. New York: Oxford University Press, 1966.

Black, H. and Labes, M. J. Guerilla warfare: an analogy to police-criminal interaction. American Journal of Orthopsychiatry, 1967, 37, 666-670.

Coleman, J. C. Abnormal psychology and modern life. Chicago: Scott, Foresman and Company, 1964.

Cook, E. The life of Florence Nightingale, Vol. I. Toronto: MacMillan and Co., 1913.

Cronbach, L. J. Essentials of psychological testing. New York: Harper & Row, Publishers, 1960.

Davies, R. L. Relationship of irrational ideas to emotional disturbance. Unpublished Masters thesis, University of Alberta, 1970.

Eccles, J. C. and McIntyre, A. K. Plasticity of mammalian monosynaptic reflexes. Nature, 1951, 167, 466-468.

Edwards, A. L. Experimental design in psychological research. Toronto: Holt, Rinehart and Winston, 1965.

Ellis, A. How to live with a neurotic. New York: Crown Publishers, 1958.

Ellis, A. and Harper, R. A. A guide to rational living. Hollywood, California: Wilshire Book Company, 1961.

Ellis, A. Reason and emotion in psychotherapy. New York: Lyle Stuart, 1962.

Federn, P. Ego psychology and the psychoses. New York: Basic Books, 1952.

Freud, S. New introductory lectures on psychoanalysis. New York: W. W. Norton and Company, 1933.

Ginott, H. E. Between parent and child. New York: MacMillan Company, 1965.

Ginzberg, E., Ginzburg, S., Axelrad, S., and Herma, J. Occupational choice: An approach to a general theory. New York: Columbia University Press, 1951.

Glueck, S. and Glueck, E. White delinquents in the core city: as boys and men. Social Science, 1970, 45, 67-81.

Gough, H. G. California psychological inventory. Palo Alto, California: Consulting Psychologists Press, 1969.

Guilford, J. P. Fundamental statistics in psychology and education. Toronto: McGraw-Hill Book Company, 1965.

Hall, A. J. Prediction of interpersonal behavior by Berne's ego state psychology. Unpublished doctoral dissertation, University of Portland, 1963.

Harris, T. A. I'm O.K. -- You're O.K. New York: Harper and Row, 1969.

Healy, M. Assessment of academic aptitude, personality characteristics, and religious orientation of Catholic sister-trainees. Unpublished doctoral dissertation, University of Minnesota, 1967.

Hebb, D. O. Diffuse conduction: The basis of higher behavior. In Harper, R. J. C., Anderson, C. C., Christensen, C. M. and Hunka, S. M. (Eds.) Cognitive processes. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1964.

Helmstadter, G. C. Principles of psychological measurement. New York: Appleton-Century-Crofts, 1964.

Hurley, J. R. and Porter, H. K. Child ego states in the college classroom. Transactional Analysis Bulletin, 1967, 6, 28.

Jean, G. L. Motivational patterns in religious women. Review for Religions, 1970, 29, 79-93.

Jeffery, C. R. The sociology of the police. In Roucek, J. S. (Ed.) Sociology of crime. New York: Philosophical Library, 1961, pp. 331-351.

Jesness, C. F., Loehr, J. G., McCormick, P. M. and Wedge, R. F. The youth center research project: differential treatment of delinquents in institutions. First annual progress report, December 1968. MH 14411-01, Institute for the Study of Crime and Delinquency, The National Institute of Mental Health, and the California Department of the Youth Authority.

Korn, H. A. and Giddan, N. S. Scoring methods and construct validity of the Dogmatism Scale. Educational and Psychological Measurement, 1964, 24, 867-874.

Levitt, E. E., Lubin, B. and Zuckerman, M. The student nurse, the college woman, and the graduate nurse: a comparative study. Nursing Research, 1962, 11, 80-82.

Medinnus, E. R. (Ed.) Readings in the psychology of parent-child relations. New York: John Wiley and Sons, 1967.

Michael, W., Haney, R. and Gershon, A. Intellective and non-intellective predictors of success in nursing training. Educational and psychological measurement, 1963, 23, 817-821.

Navran, L. and Stauffacher, J. C. The personality structure of psychiatric nurses. Nursing Research, 1957, 5, 109-114.

Penfield, W. Memory mechanisms. Archives of Neurology and Psychiatry, 1952, 67, 178-198.

Penfield, W. and Roberts, L. Speech and brain mechanisms. Princeton, N.J.: Princeton University Press, 1959.

Perry, D. K. and Cannon, W. M. Vocational interests of computer programmers. Journal of Applied Psychology, 1967, 51, 23-34.

Peters, R. A study of the intercorrelations of personality traits among a group of novices in religious communities. Studies in Psychology and Psychiatry, 1942, 5, 1-38.

Pierson, G. and Kelly, R. F. HSPQ norms on a state-wide delinquent population. Journal of Psychology, 1963, 56, 185-192.

Porter, H. K. Construct validity and test correlates of Berne's child ego states. Unpublished Master's thesis, Michigan State University, 1966.

Rappaport, D. Diagnostic psychological testing. Vol. 1. Chicago: The Yearbook Publishers, Inc., 1949.

Reiss, A. J., and Bordua, D. J. Environment and organization: a perspective on the police. In Bordua, D. J. The police: six sociological essays. New York: John Wiley and Sons, Inc., 1967.

Reiss, A. J. Professionalization of the police. In Brandstatter, A. F. and Radelet, L. A. Police and community relations. Beverly Hills: The Glencoe Press, 1968, 215-230.

Riland, L. H. Dir. Psychological Research and Services Eastman Kodak Company, Rochester, 1970 (Personal communication).

Roe, A. Psychology of occupations. New York: John Wiley and Sons, Inc., 1956.

Rokeach, M. The open and closed mind. New York: Basic Books, Inc., 1960.

Rokeach, M. The nature and meaning of dogmatism. Psychological Review, 1954, 61, 194-204.

Rosenburg, Pearl and Fuller, M. Dynamic analysis of the student nurse. Group Psychotherapy, 1957, 10, 22-37.

Rush, C. H. The selection of computer programmers. Unpublished manuscript. Standard Oil Company, (New Jersey). In McNamara, W. J. and Hughes, J. L. A review of research on the selection of computer programmers. Personnel Psychology, 1961, 14, 39-51.

Sarbin, T. R. and Jones, D. S. Intra-personal factors in delinquency. Nervous Child, 11, 1955, 23-27.

Stein, L. I. The doctor-nurse game. Archives of General Psychiatry, 1967, 16, 699-703.

Sterne, D. M. Use of the Kuder preference record-personal with police officers. Journal of Applied Psychology, 1960, 44, 323-324.

Super, D. The psychology of careers. New York: Harper and Row, Publishers, 1957.

Turner, W. W. The police establishment. New York: G. P. Putnam's Sons, 1968.

Upshall, C. C. and Riland, L. H. An unpublished study at Eastman Kodak Company, 1958.

Vacchiano, R. B., Strauss, P. S. and Schiffman, D. C. Personality correlates of dogmatism. Journal of Consulting and Clinical Psychology, 1968, 32, 83-85.

Vacchiano, R. B., Strauss, P. S. and Hochman, L. The open and closed mind: a review of dogmatism. Psychological Bulletin, 1969, 71, 261-273.

Weiss, E. Principles of psychodynamics. New York: Grune and Stratton, 1950.

Weiss, E. The structure and dynamics of the human mind. New York: Grune and Stratton, 1960.

Westley, W. A. Violence and the police. American Journal of Sociology, 49, 1953, 34-41.

Westley, W. A. The police: a sociological study of law, custon, and morality. In Burgess, E. W. and Bogue, D. J. (Eds.) Contributions to urban sociology. Chicago: The University of Chicago Press, 1964, 304-313.

Wilson, J. Q. Varieties of police behavior. Cambridge: Harvard University Press, 1968.

Zingle, H. W. A rational therapy approach to counseling underachievers. Unpublished Doctoral dissertation, University of Alberta, 1965.

A P P E N D I X A

E. S. I.

E. S. I.

DAVID McCARLEY

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E. S. I.

INSTRUCTIONS

The items in this booklet will be answered on a separate answer sheet. It is not necessary that you put your name on the answer sheet as there will be no effort made to identify answers with individuals. Please fill in the other information on the answer sheet as this will be needed for research purposes. Do not mark on this booklet.

In this booklet there is a series of pictures in which there are two people talking to each other. The person on the left always speaks first and asks a question or makes a comment. To the right of the figures is a list of possible replies to the person who speaks first. Your task will be to look at each scene and imagine what the second person would say. Read all the replies in the column to the right of each scene and then choose one reply from that column which is closest to the way you would reply. Black in the corresponding number on your separate answer sheet. Be sure to mark an answer on the answer sheet for each scene. There are no right or wrong answers. You may begin.

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1. Get lost and mind your own business.
2. We would like to have you come in and join us.
3. Would you like to speak to the host?
4. Who cares?
5. I'm sorry. I will turn down the music right now.

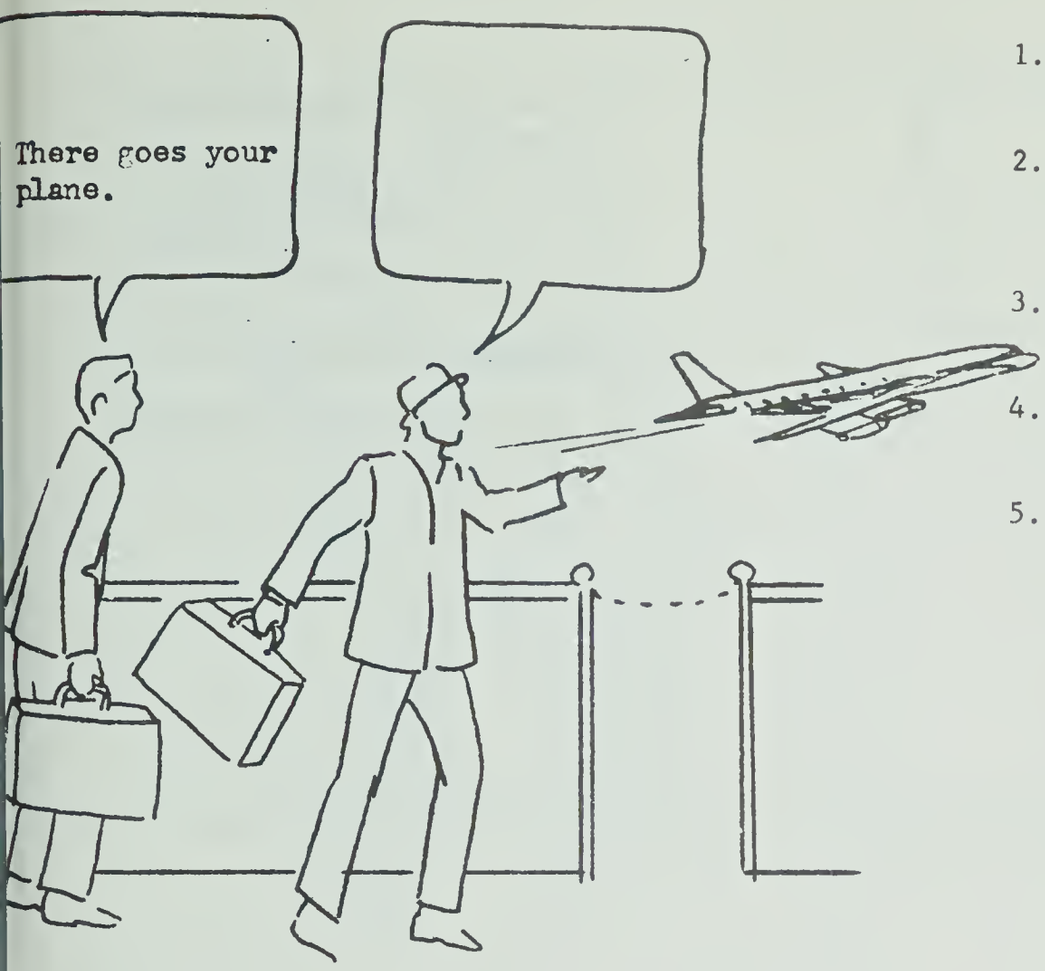
1. I'll clean it up. I should be more careful.
2. Why ask me?
3. Don't worry. I'll replace it immediately.
4. You shouldn't have had it so close to the edge.
5. I knocked it over.

3

1. I'm not sure but thanks for your interest.
2. No, I don't think so.
3. What does it look like?
4. I told you to help me carry the books.
5. I just hope I didn't damage your books.

4

1. Well, I'm not standing here another minute.
2. I guess we will just have to put up with it.
3. It may be because of the weather.
4. You had better button your coat or you will catch a cold.
5. Stop complaining.

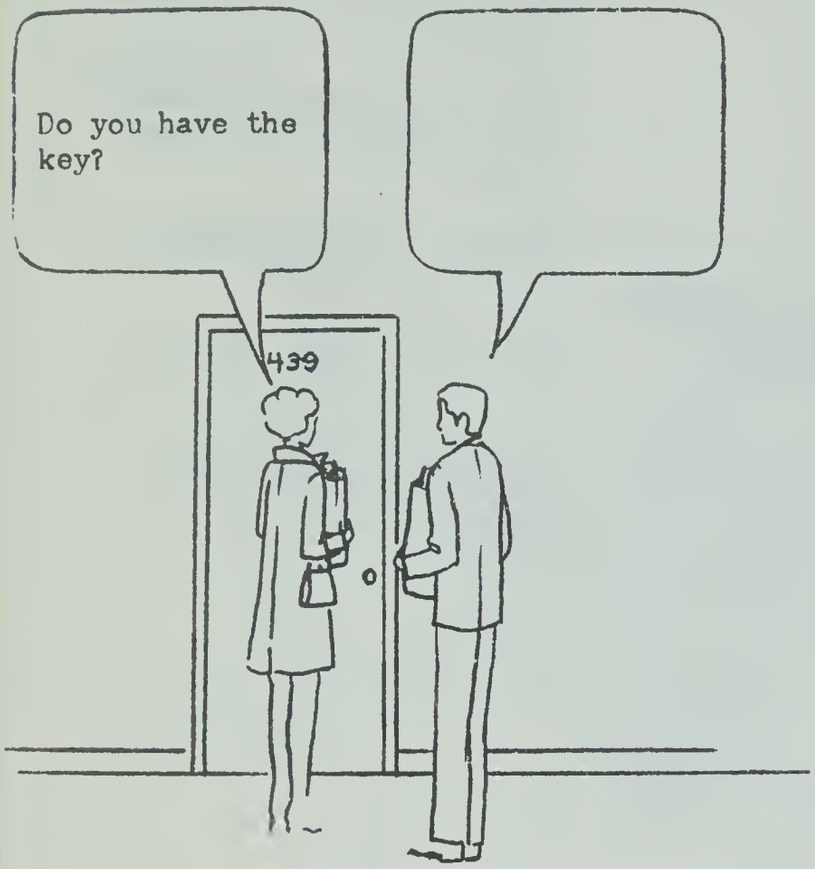


1. You don't have to tell me. I can see.
2. If you had checked on the time, this would not have happened.
3. Oh well, I didn't really want to go anyway.
4. I'll check to see when the next one leaves.
5. I'm sure there will be another one which leaves shortly.

6

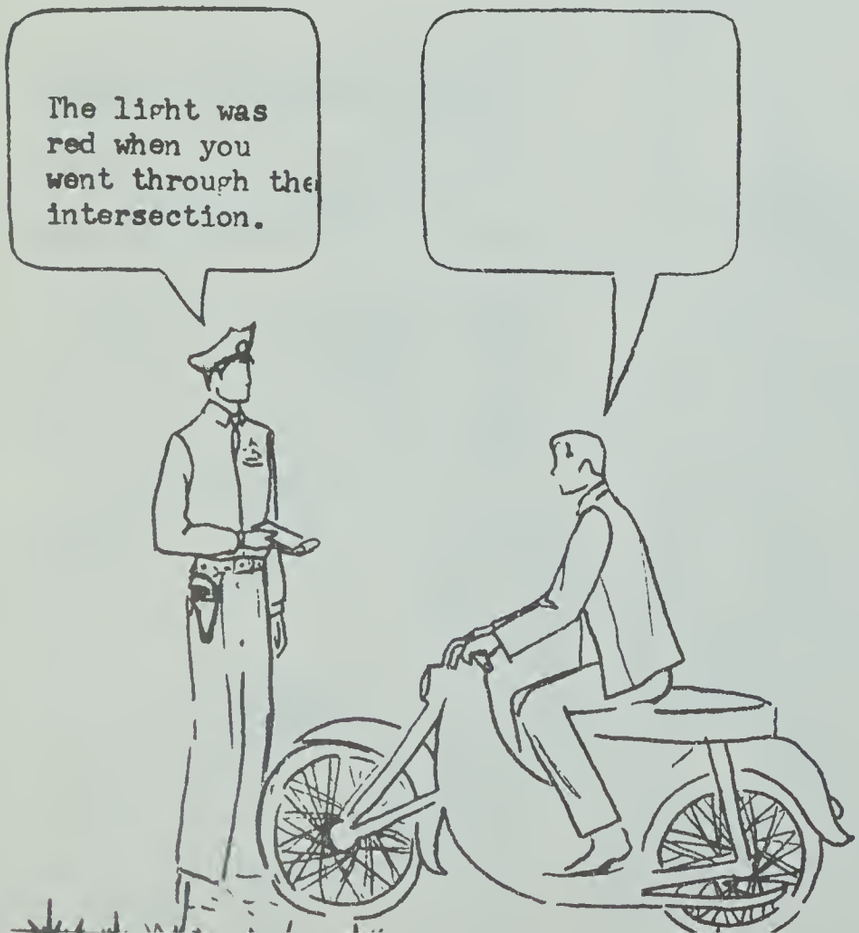
1. Yes, would you help me if I don't understand something?
2. What business is it of yours?
3. Yes, I started work yesterday.
4. No, but <u>you</u> act like it is <u>your</u> first job.
5. Yes, it is nice of you to ask.

7

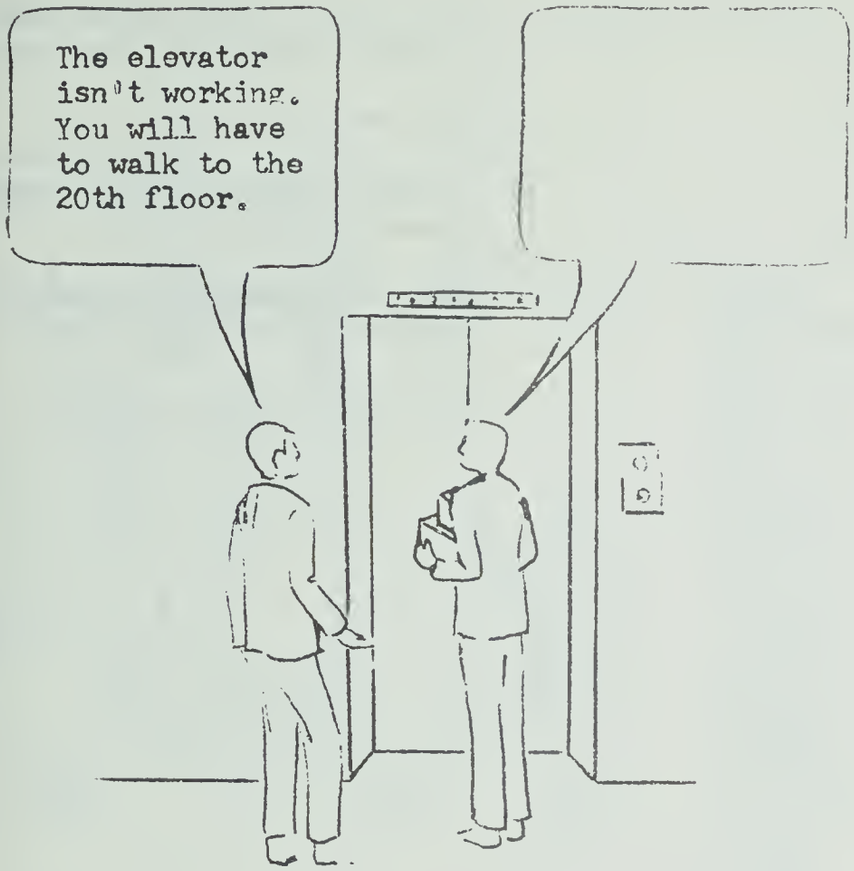


1. You are always forgetting the key.
2. Why should I have it?
3. I hope I haven't lost it.
4. Yes, I think I have it.
5. Yes, let me open the door for you.

8



1. And I say it wasn't.
2. It's okay. I understand that you have to give me a ticket.
3. Don't you have anything better to do than hand out tickets?
4. I didn't notice that it had changed.
5. I'll be more careful next time.

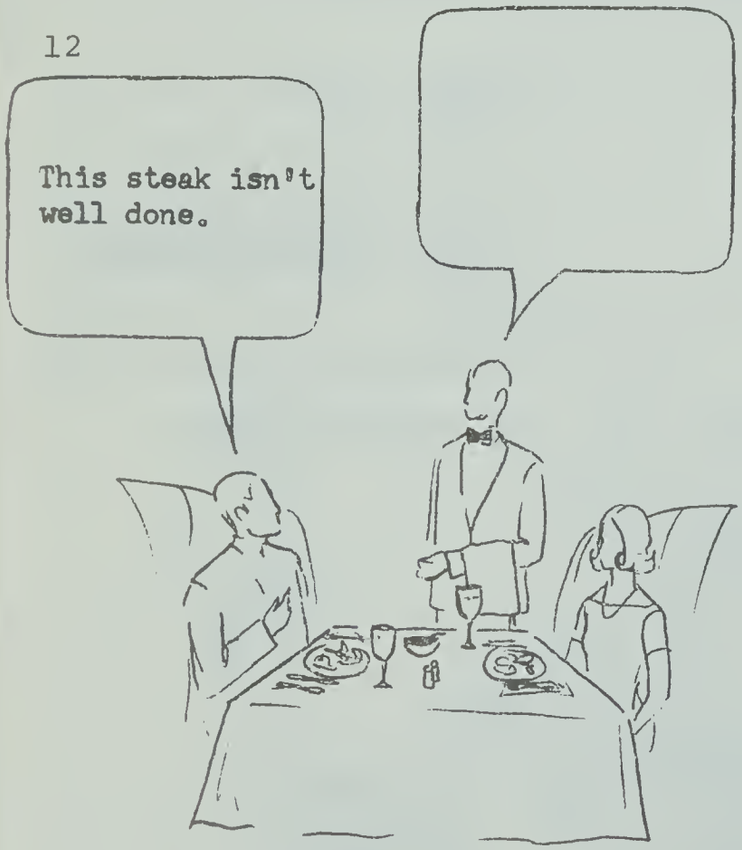


1. I guess I need the exercise anyway.
2. Someone is going to be sorry about this.
3. Well, I'm not going to carry <u>these</u> up 20 floors.
4. Where are the stairs?
5. Thanks, you saved me a long wait.

1. I hope we haven't disturbed anyone.
2. You can't stop us.
3. Is there somewhere we can dance?
4. We had better do what he says.
5. You stop bothering us!

1. You should know better than to ask a question like that.
2. No, and I don't have to.
3. I didn't know presents were expected.
4. No. Your idea of exchanging presents is a great idea.
5. Yes, but I'll go get one.

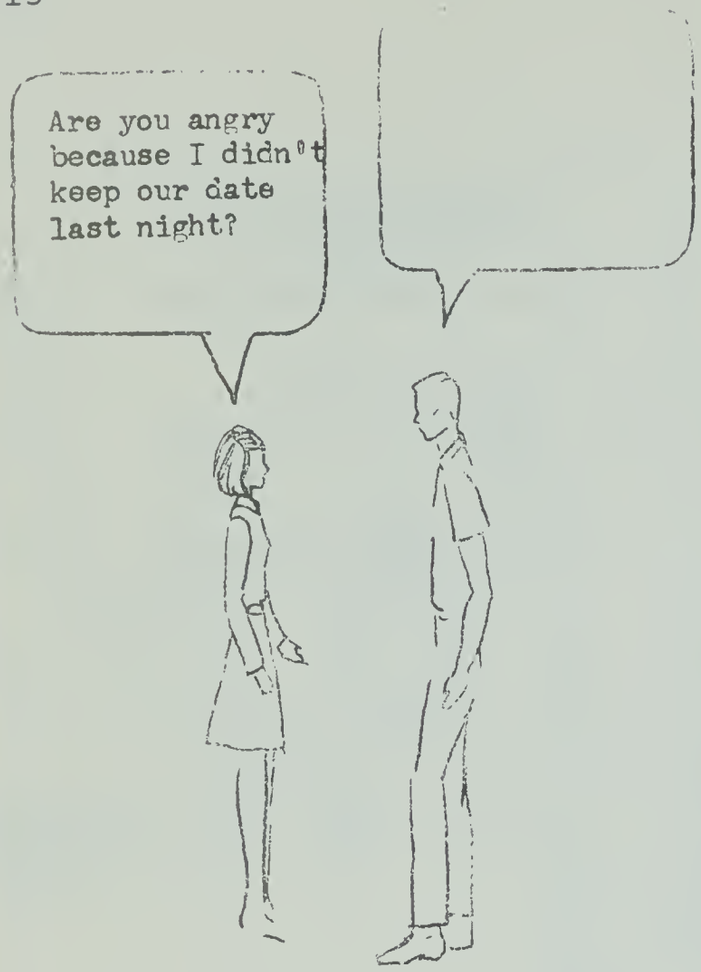
12



1. Please let me return it. Our duty is to please our customers.
2. I will take it back.
3. If you don't like it, go somewhere else.
4. I'm sorry. I hope the delay won't inconvenience you.
5. What do you expect me to do about it?

1. I hit it harder than I expected to.
2. I hope no one was hurt.
3. Try and make us.
4. We will pay for it and never play here again.
5. You should have had a screen on that window.

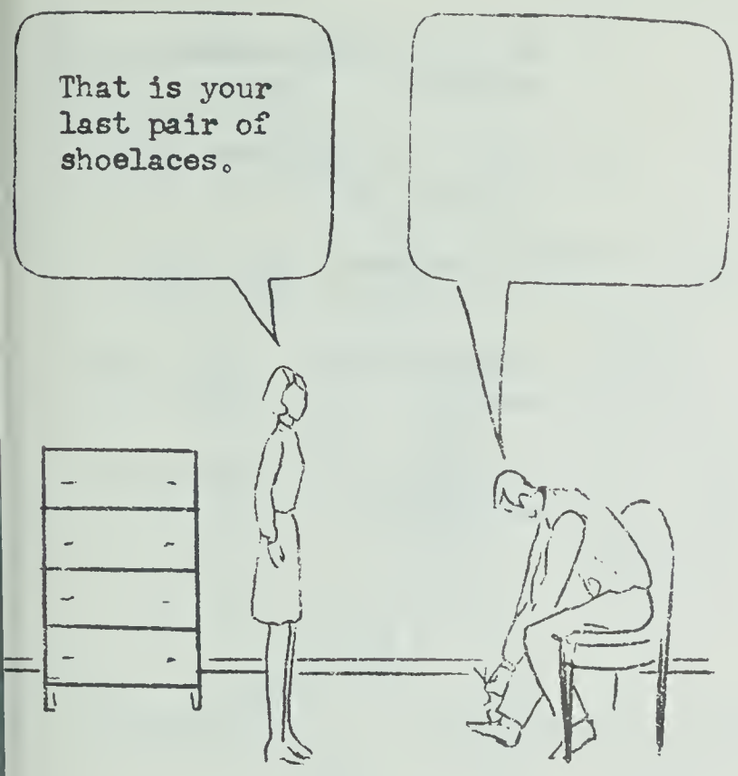
1. Prove it.
2. I'm sorry. I'll call the usher who will help you find some others.
3. Let's check our tickets.
4. Oh, I'm sorry. Then we will move.
5. You are late so take what you can find.



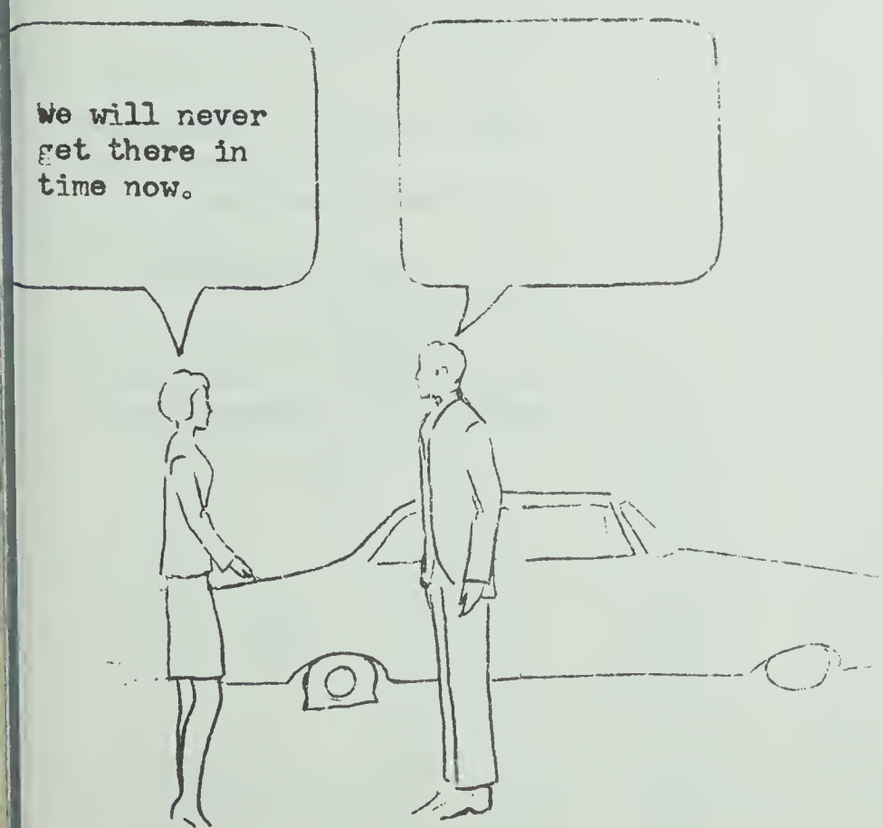
1. Things like that just happen.
2. No, I'm sure that you must have had something important to do.
3. What happened?
4. What do you <u>think</u>?!
5. If you had any manners you would have called.

6

1. None of your business.
2. I told you not to wake me this morning.
3. I don't really feel like it, but I guess I'll have to.
4. Thank you for remembering to wake me.
5. Yes, what time is it?



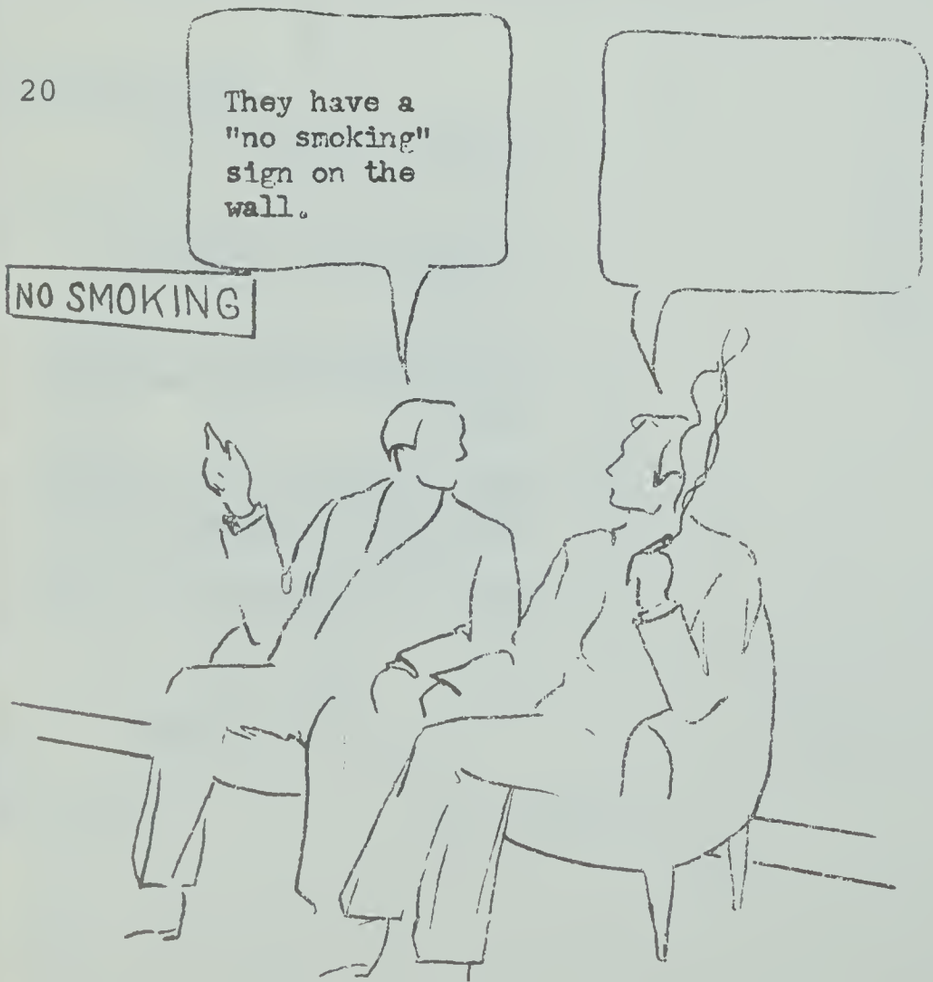
1. Why didn't you buy me some more like I asked?
2. I'll buy some more later.
3. I should have listened to you and gotten some more.
4. Don't you think I know that?!
5. That's okay. Don't you worry about it.



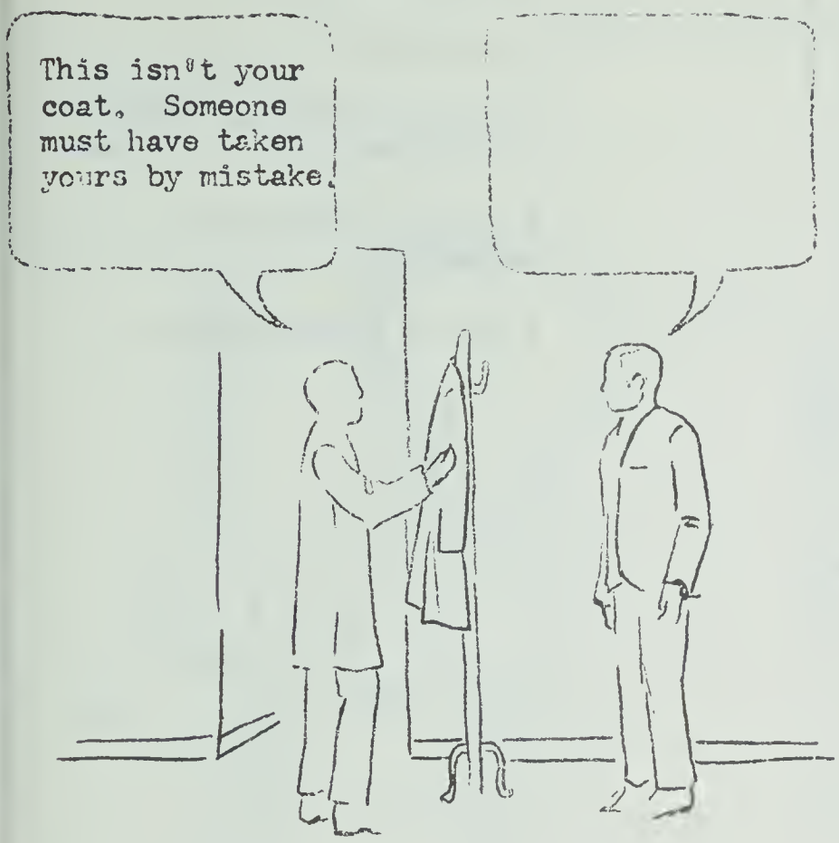
1. It will take about 20 minutes to fix.
2. I should have listened to you and left earlier.
3. I'll call a taxi for you so you won't have to miss the movie.
4. It's your fault. You should have been more careful.
5. What do you expect me to do?

1. Let's go explain what happened.
2. Yes, it is the thing that we should do.
3. Are you nuts? Let's get out of here.
4. It's your fault. <u>You</u> tell them.
5. It's okay. I'll help you pay for it.

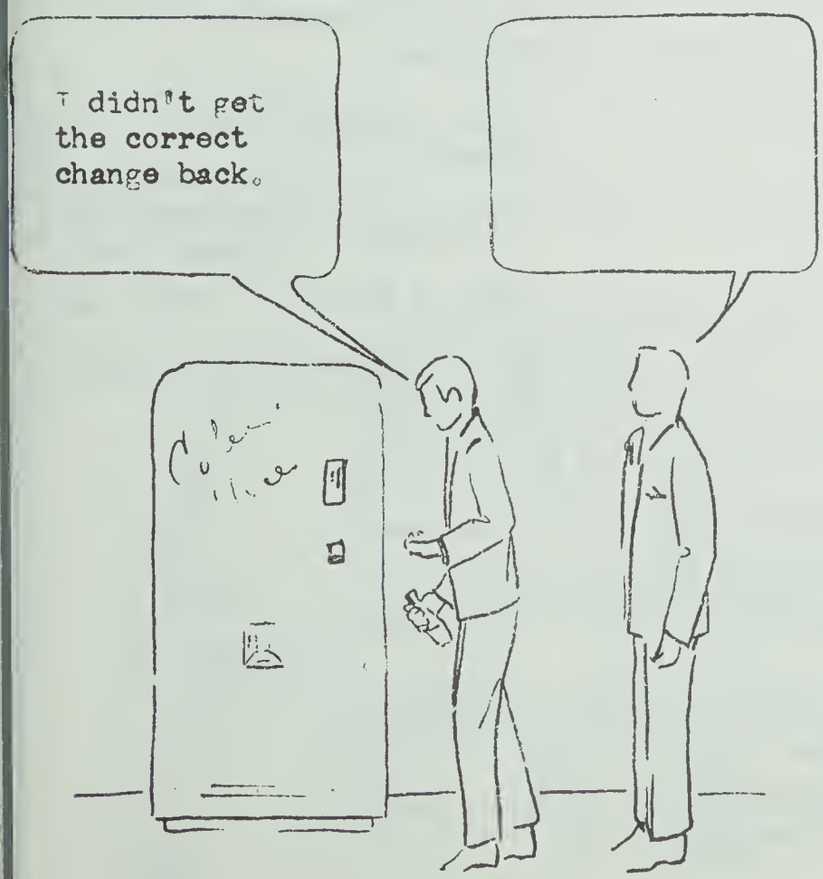
20



1. Those signs don't mean anything.
2. Don't tell me. I can read.
3. Oh, I hadn't noticed.
4. Oh, I'll put my cigarette right away.
5. Oh, I'm sorry. I hope the smoke hasn't bothered you.

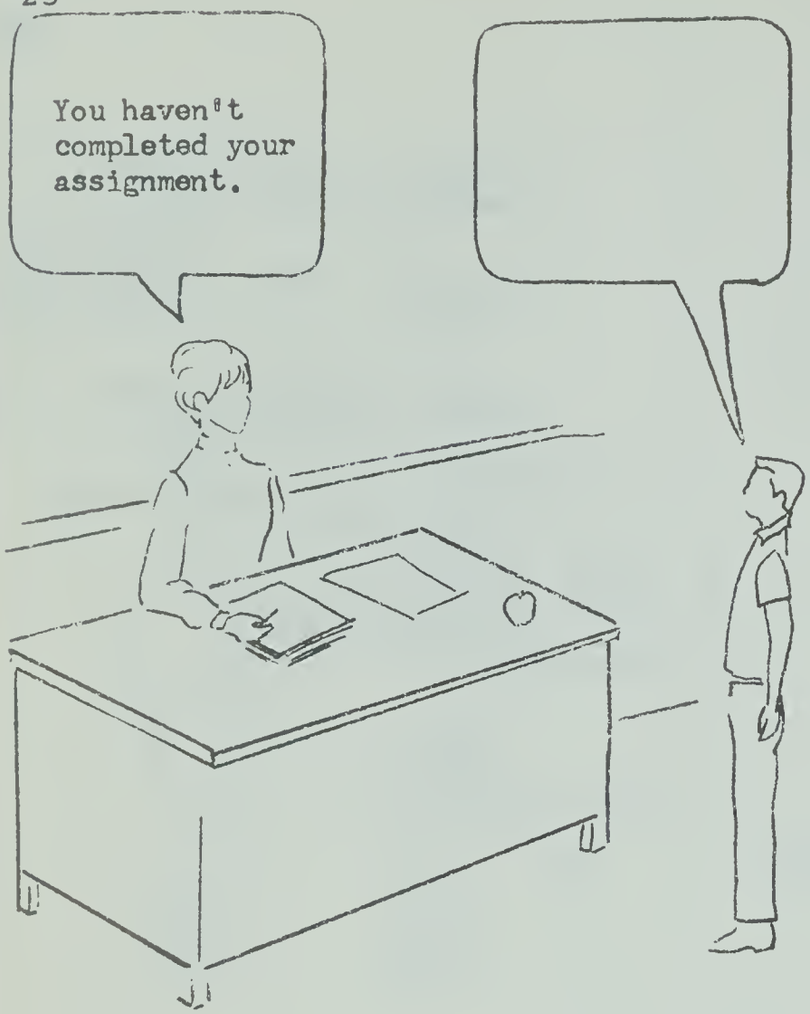


1. Well, I'm going to take theirs.
2. Why didn't you tell me sooner?
3. I should be more careful where I leave my coat.
4. Is there any identification in this one?
5. Don't worry. I'm sure I will get it back.



1. Why tell me?
2. Don't complain. They only cost 10¢.
3. I hope you didn't lose too much.
4. There is a number to call for a refund.
5. There is not much you can do about machines.

23



1. You shouldn't have given us so much to do.
2. So expel me.
3. Is there something else I could do?
4. I promise I'll do it tonight.
5. I didn't understand it.

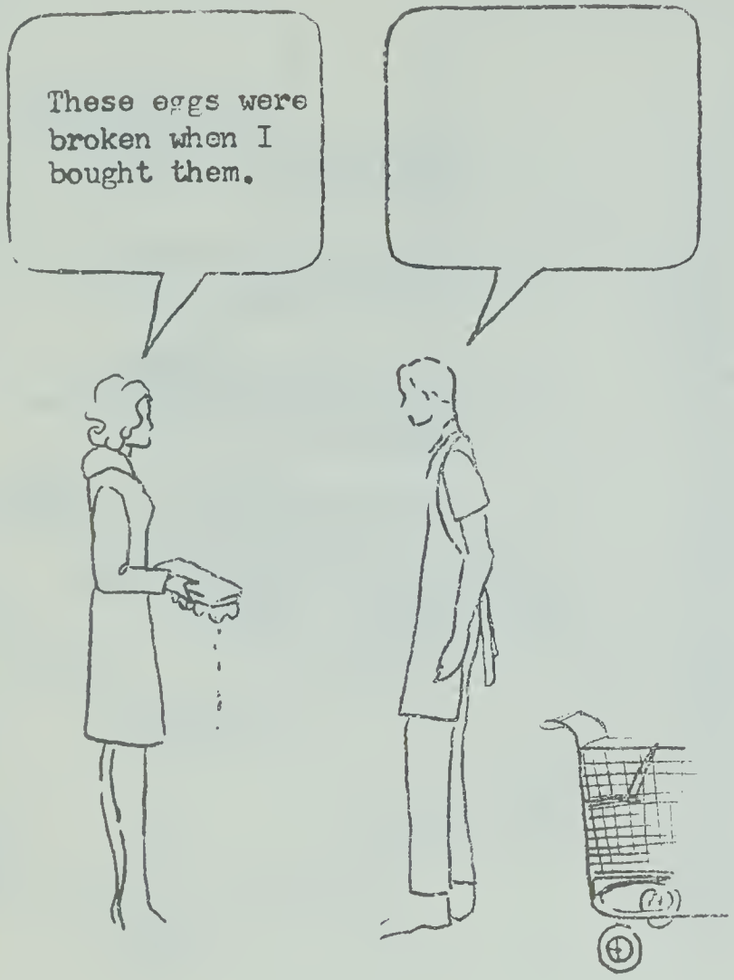
24

1. Well, do it somewhere else next time.
2. I hope you didn't hurt yourself.
3. No kidding!
4. I should have been watching.
5. We are lucky not to be hurt.

1. If you would be quiet, you could.
2. We are too far back in the auditorium.
3. Let's sit here anyway. We can ask others what he said.
4. Can I do something to help?
5. It isn't worth hearing anyway.

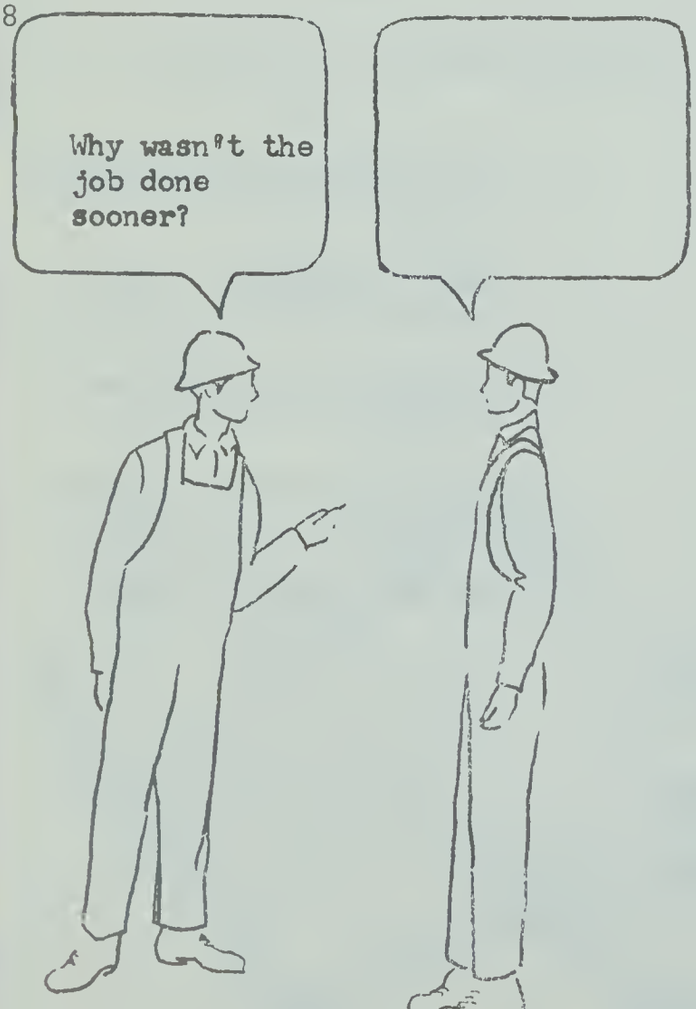
1. It is nice of you to let us know.
2. This is important. Don't interrupt us.
3. Is there a room where we can talk?
4. We are sorry that we broke the rule.
5. The same goes for you.

27

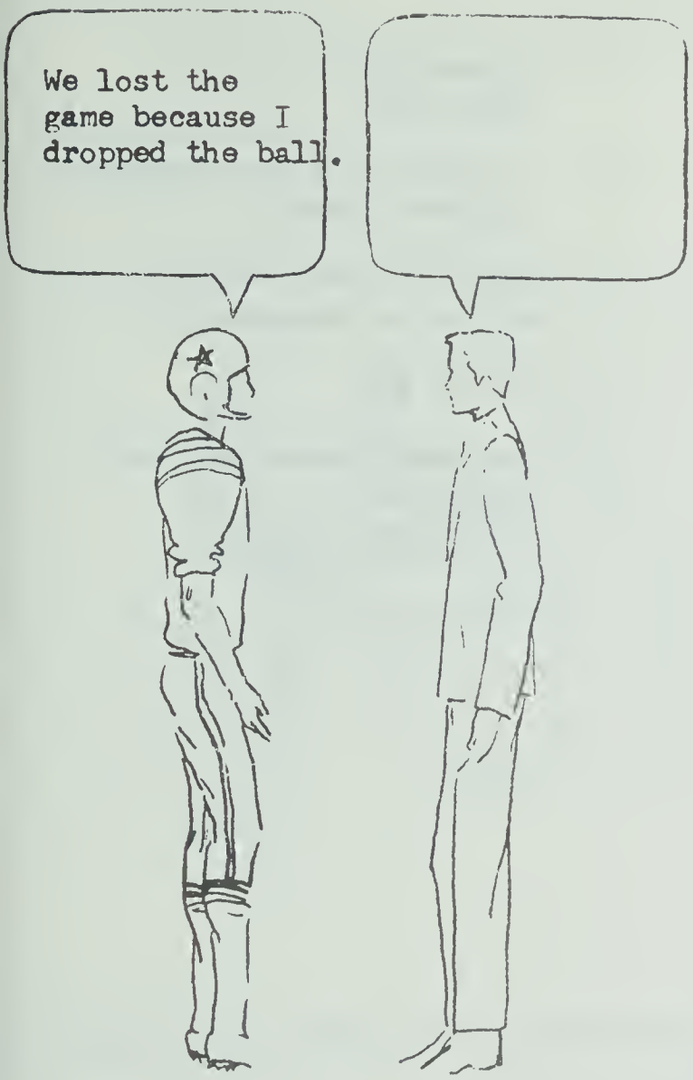


1. That's a likely story.
2. I'm sorry you had to make an extra trip.
3. I can exchange them for you.
4. You should have said something before you left the store.
5. I should have checked them more carefully.

28



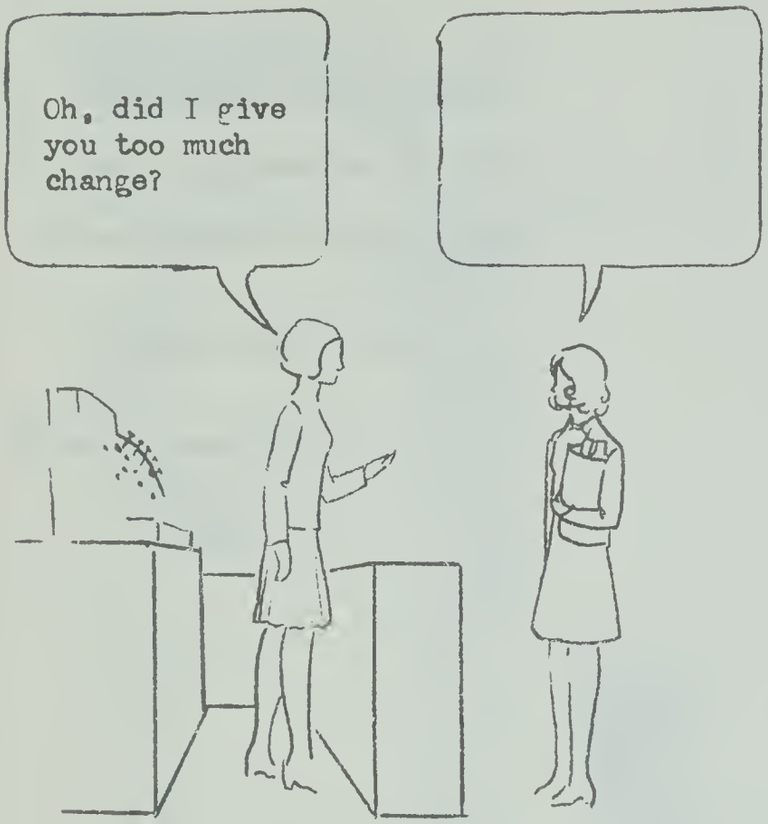
1. If you were a good foreman, it would be.
2. Don't worry. We will do it for you before the deadline.
3. We were going as fast as we could, sir.
4. The materials didn't arrive in time.
5. What do you think I am, a magician?



1. Well, when are you going to learn to hold onto it?
2. What do you want <u>me</u> to do?
3. That's okay. Everyone makes mistakes.
4. They have a very powerful team.
5. Oh well, we did what we could.

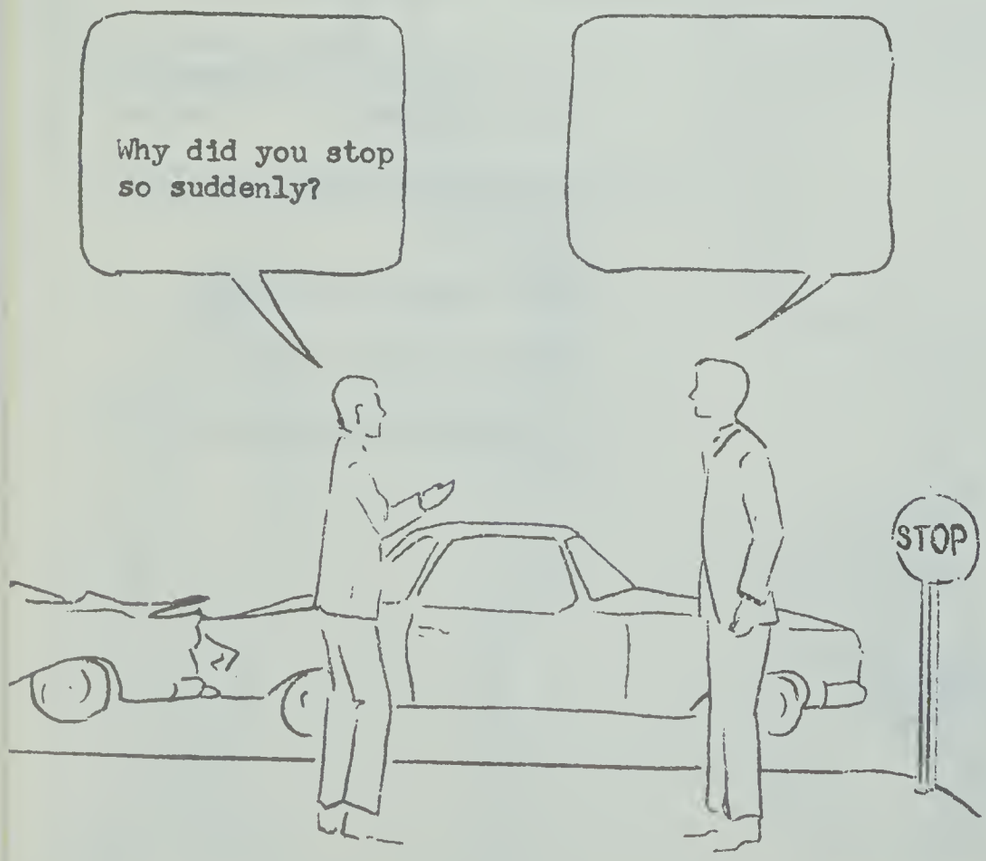
1. I'll have it cleaned up in a minute.
2. We all have days like that sometimes.
3. How sloppy can you <u>get</u>?
4. You're telling me!
5. Is something bothering you?

31

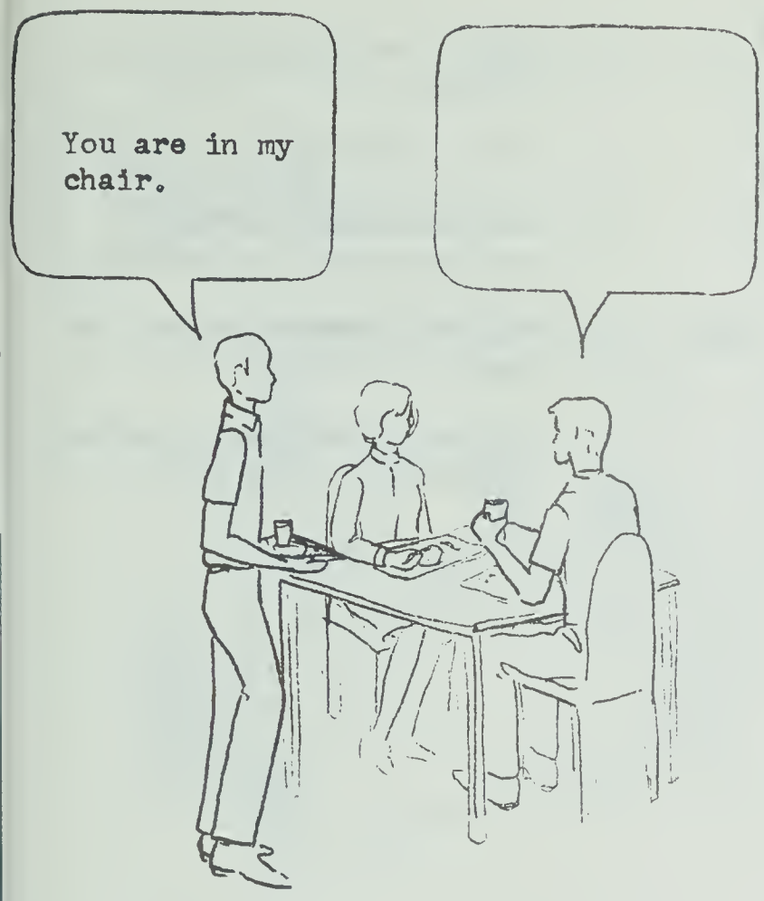


1. If you did, it's your tough luck.
2. I should have been watching more closely.
3. Yes, but don't worry, I will give it back.
4. Let me see.
5. You should know what you are doing.

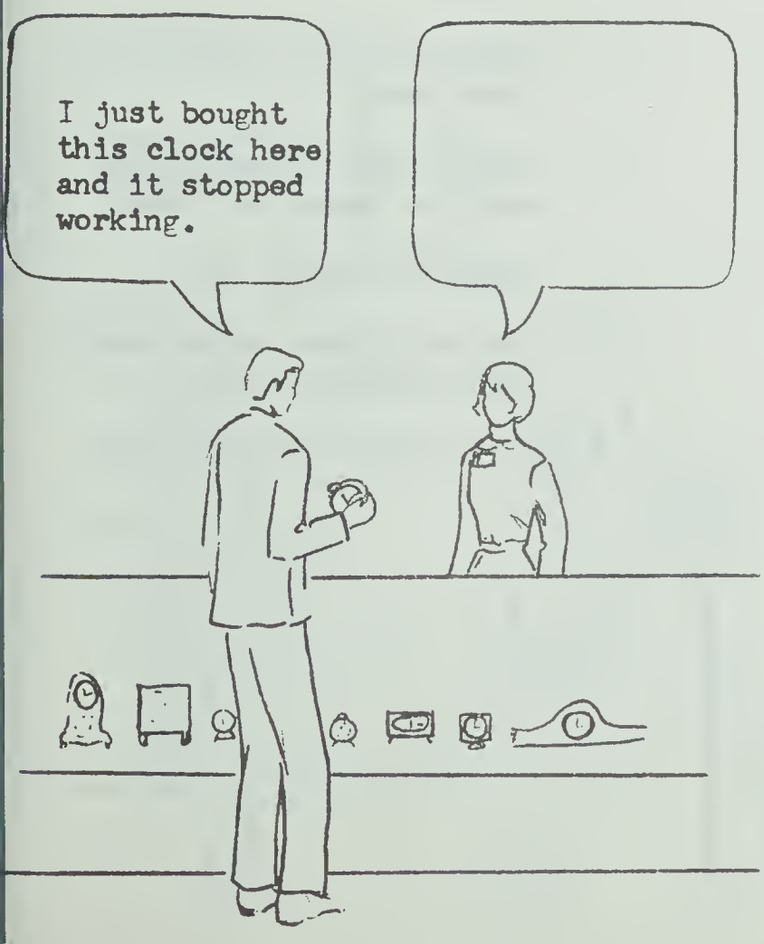
32



1. I guess it was my fault.
2. A dog dashed out in front of me.
3. You shouldn't be allowed to drive.
4. I hope you are not hurt.
5. I don't have to answer you.



1. Here, I'll get you a chair.
2. Were you here before?
3. I'll move; here is your chair.
4. You ought to find some-place else.
5. Try and move me.

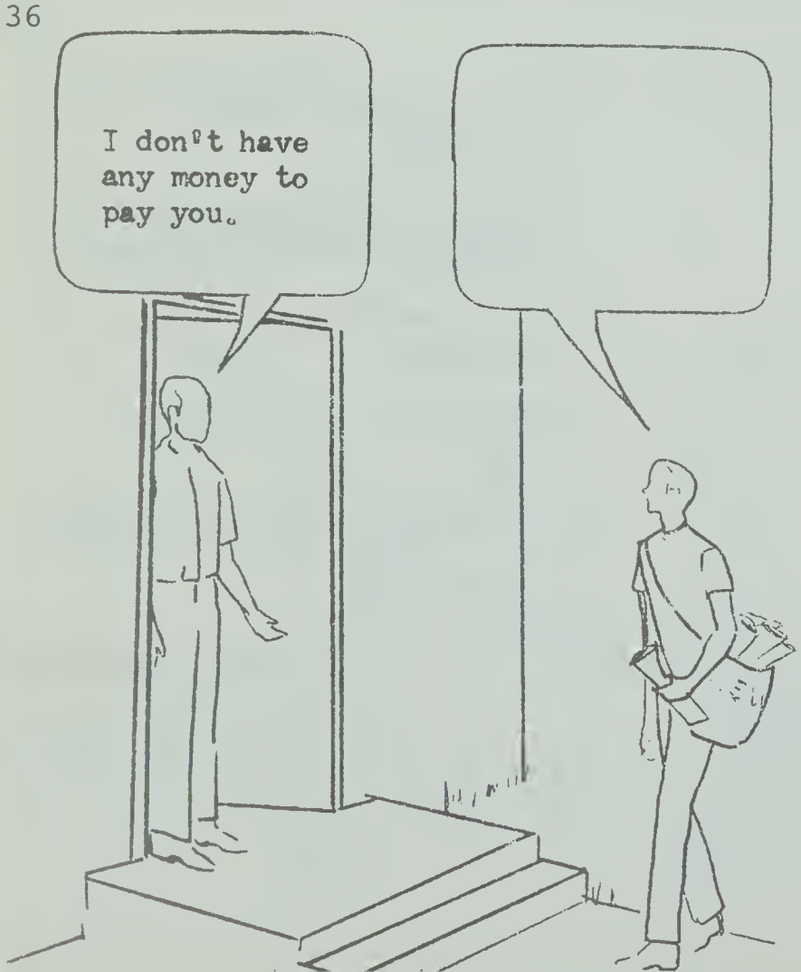


1. You probably broke it yourself.
2. Tell me what you would like us to do.
3. I'm sorry for the inconvenience.
4. What do you expect me to do?
5. What seems to be the trouble?

35

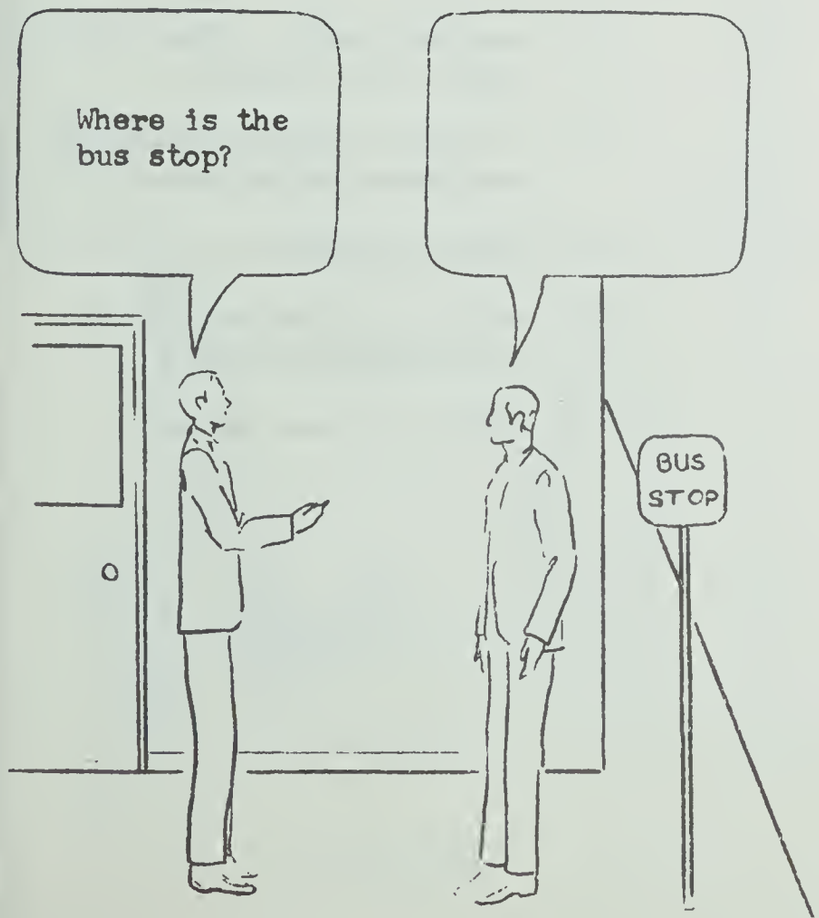
1. I will check it with the office.
2. Don't blame me.
3. You are always trying to get something for nothing.
4. You are probably right. It sounds too high.
5. If that is too much, perhaps we can reduce the bill.

36



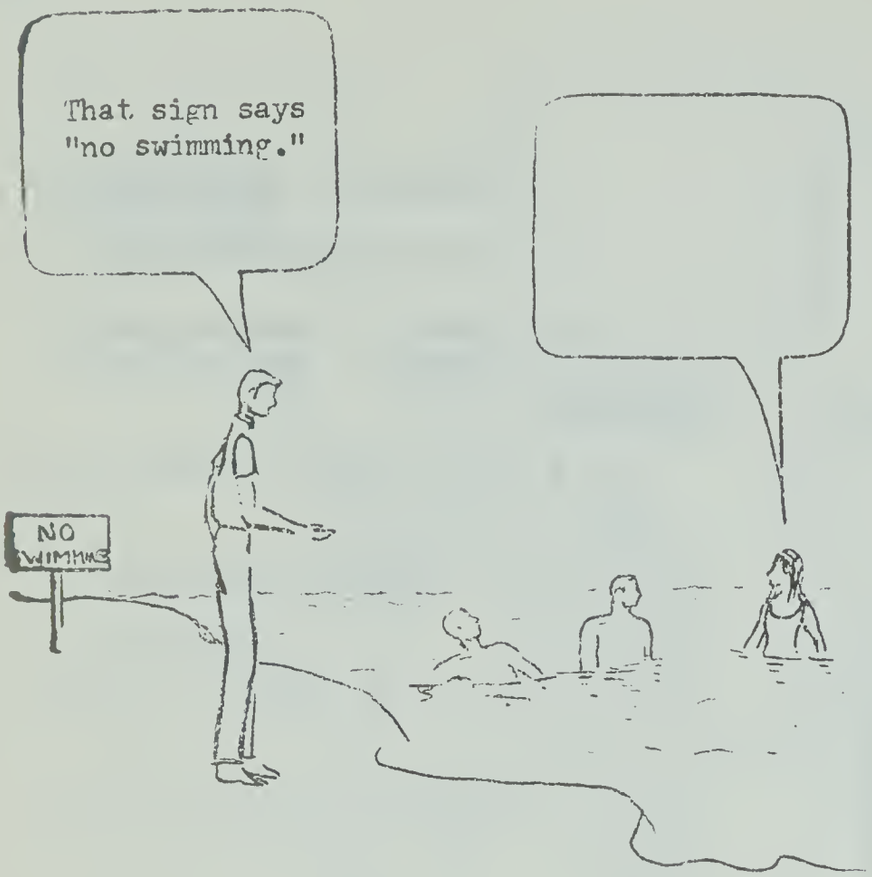
1. When would you like me to come back?
2. That's okay. Everyone is short on money at times.
3. I want the money now.
4. You are always saying you don't have any money.
5. I will come back tomorrow.

1. Now that is really stupid.
2. I have already had one.
3. Thanks. I wasn't really sleeping. This pill will help me.
4. If you think I need it, I'll take it.
5. I don't want any pills.



1. Here it is.
2. Don't ask me!
3. It's right here. We can catch it together.
4. You should know; it's right in front of you.
5. I'm sorry, I must have been in front of the sign.

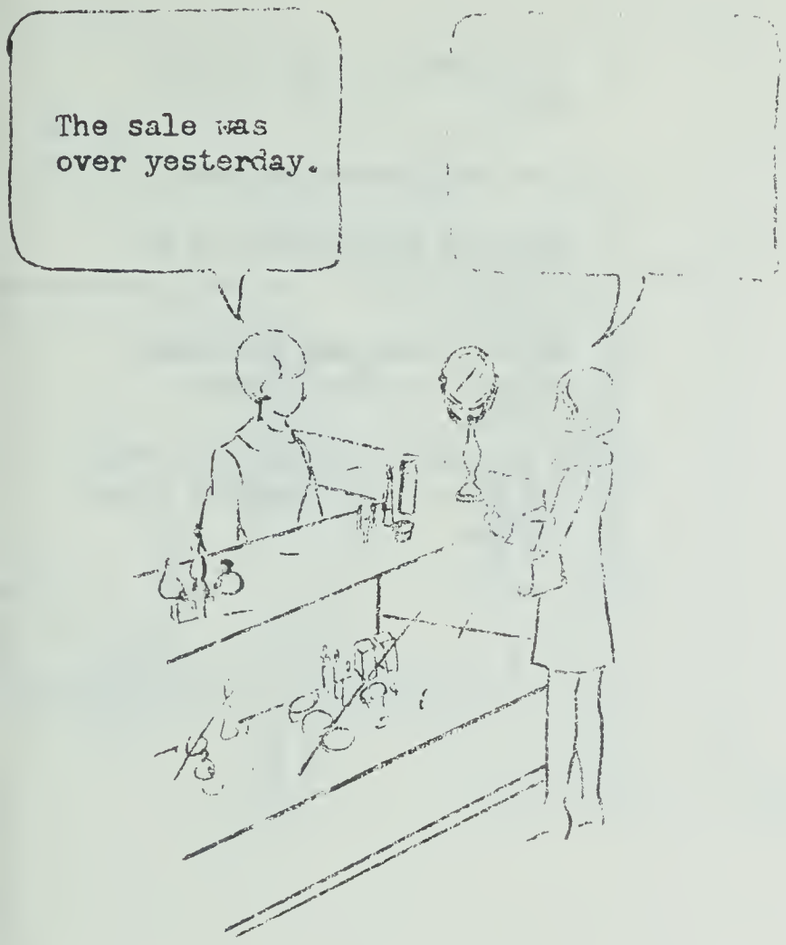
39



1. We have permission from the owner.
2. Who cares.
3. Please don't report us. We'll get out.
4. Do you always tell everyone what to do?
5. Thanks for taking the trouble to stop and tell us.

40

1. Are you okay? I hope you didn't hurt yourself.
2. I'm sorry, they shouldn't have been in the aisle.
3. What happened?
4. Well, I'm glad that is all the damage you did.
5. Well, it's not my fault.



1. You are very kind to tell me before I buy.
2. How much does it cost today?
3. The days for the sale should have been advertised more clearly.
4. Sell it to me anyway. Nobody is looking.
5. Well, I guess I'll have to do without it.

1. Would you like another bowl of soup?
2. That's too bad. I'll get you some more.
3. Well, I can't serve everybody at once.
4. It's your fault then. It was hot when I brought it.
5. I'm sorry. I should have brought it sooner.

43

1. I'm sorry. I'll try my best.
2. You keep quiet yourself.
3. What do you expect me to do about it?
4. He is tired and not used to all the excitement.
5. I'm sorry. I hope you will be able to go back to sleep soon.

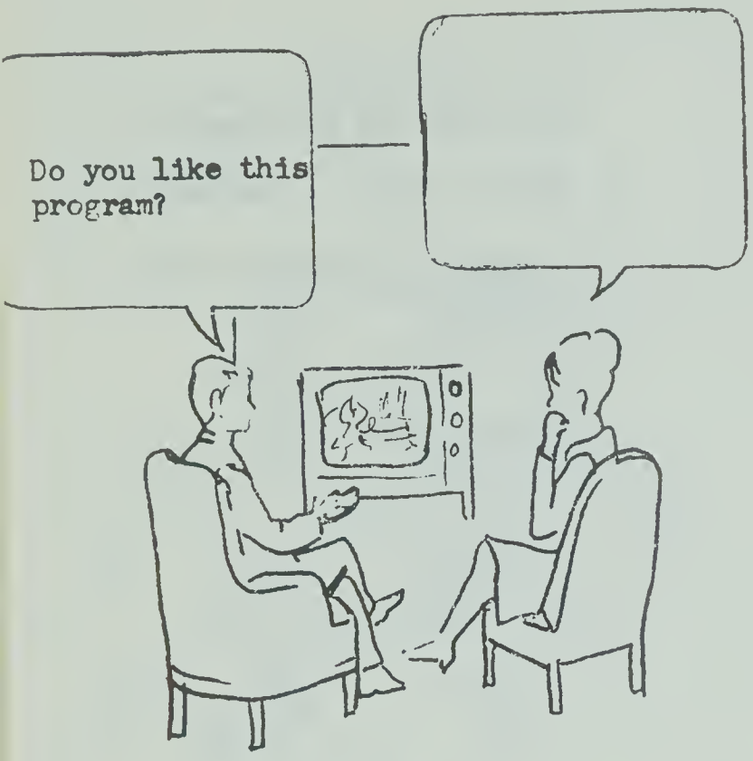
44

1. Is is too far to walk?
2. They shouldn't let people like that drive busses.
3. Well, I guess we will have to walk.
4. It's too bad. I hope you won't miss something important.
5. I didn't want to go anyway. Let's skip school.

1. Don't worry about it. I'll take you out for supper.
2. That's okay. I can wait.
3. I suppose you were on the telephone all day.
4. When will it be ready?
5. Then I'm going out to eat.

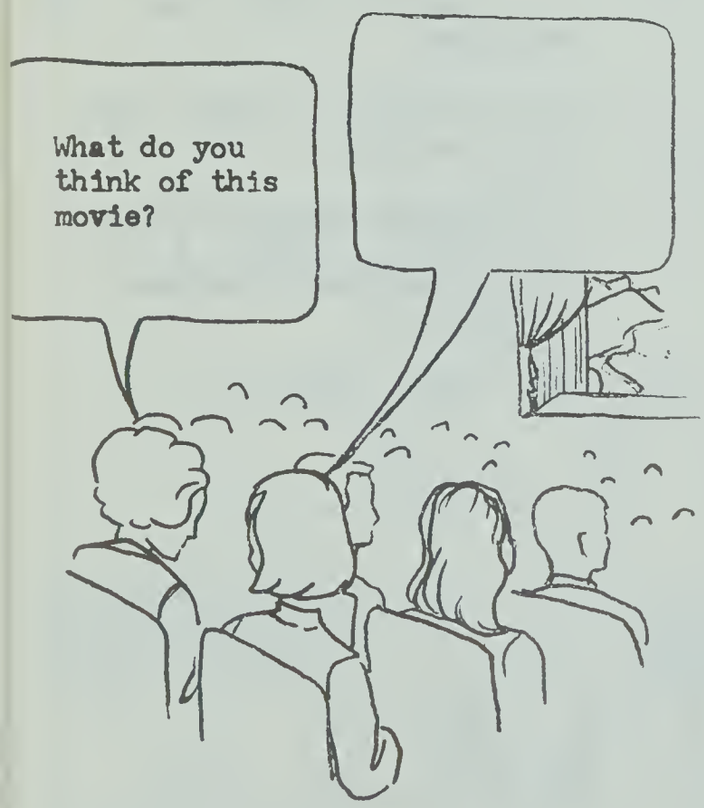
1. I'll come back early like you asked.
2. I'll call you. I don't want you to worry.
3. I'll be back about 6 o'clock.
4. You should know by now when I come back.
5. When I feel like it.

47

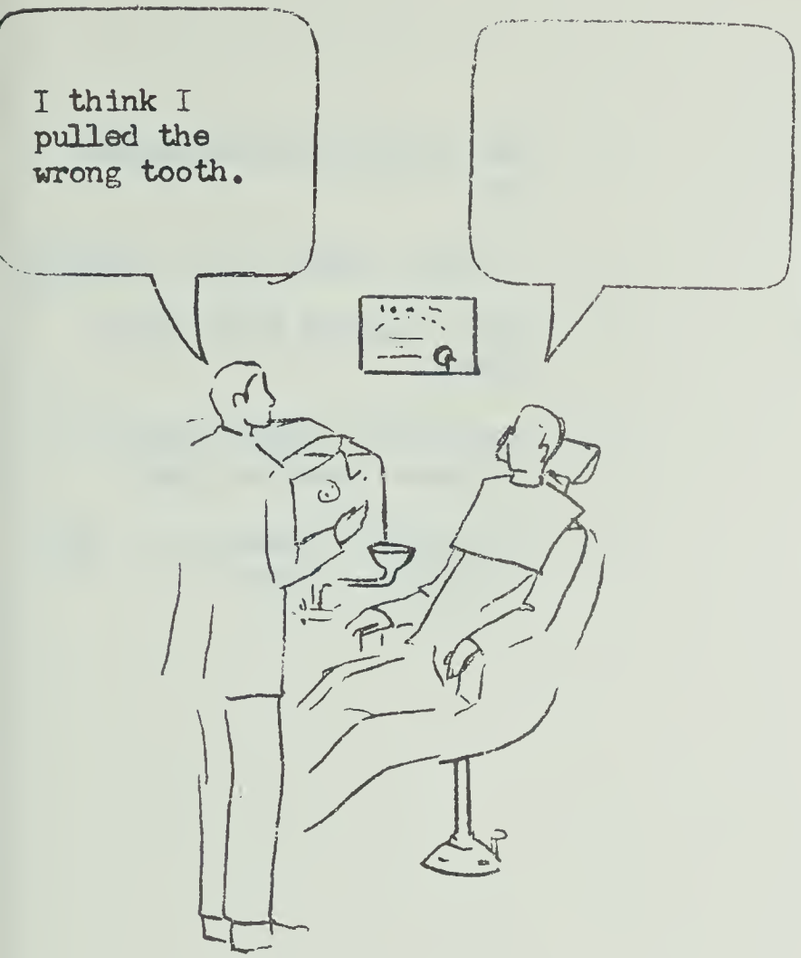


1. It is better than your football games.
2. No, and I'm not going to watch it another minute.
3. No, but I'll watch it if you want to.
4. It is one of my favorites.
5. Yes, I hope you like it too.

48



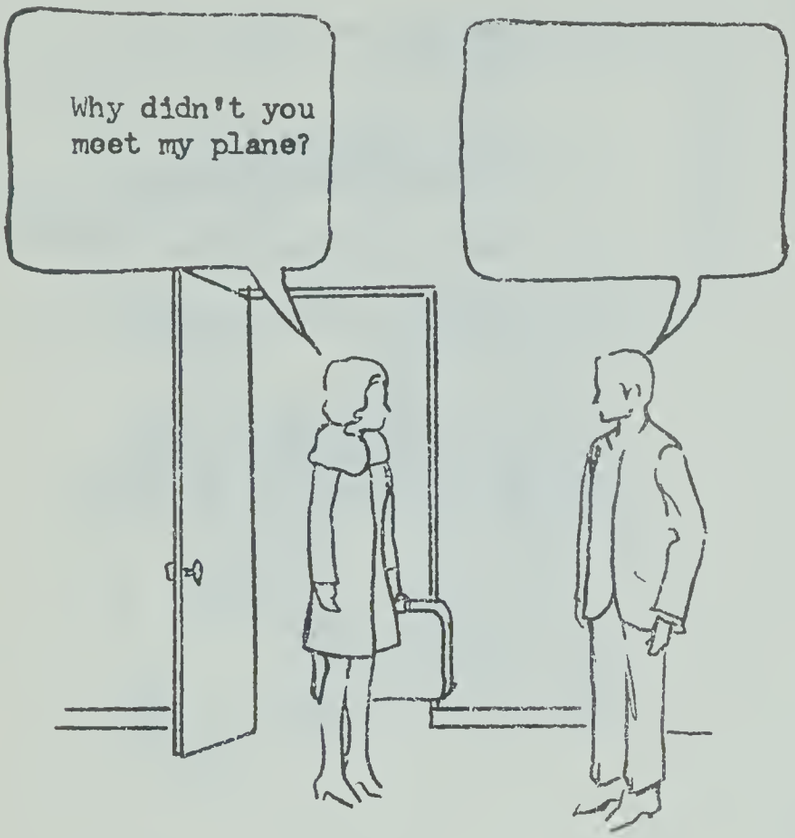
1. What's it to you?
2. I don't like it but I'll stay if you want to.
3. I think it is very well done.
4. It's good. You sure do know how to choose good movies.
5. Be quiet. I'm trying to listen.



1. What are you going to do about it?
2. Don't worry about it. Everyone makes mistakes.
3. What can be done about it?
4. Oh well, it was probably bad anyway.
5. I'll sue you if you did because you are supposed to know what you are doing.

1. It is very good to see that you are handling things properly.
2. Okay, I don't want to break the rules.
3. My wife can give you all the details.
4. You can't make me fill those out.
5. <u>You</u> fill them out and be quick about it.

51



1. You should have telephoned me.
2. I didn't want to so I didn't.
3. What time did your plane arrive?
4. I'm sorry. Next time I'll be there ahead of time.
5. I'm sorry I missed it. May I take your bag?

52

1. I didn't want it anyway.
2. Would you keep my name in your file?
3. Thank you for letting me take so much of your time.
4. Oh well, I guess I'm just not experienced enough.
5. You should have told me sooner that I wasn't qualified.

A P P E N D I X B

ANSWER SHEET

ME ..... TODAY'S DATE ..... 196 .....
Last First Middle Day Mo. Yr

HOOL ..... GRADE .....

ME
TEST .....

E..... (Yrs.) MALE FEMALE

Indicate answer by placing a mark between the guidelines as shown in the example. Use HB pencil.

Example A 1 B 2 C 3 D 4 E 5

STUDENT NUMBER

	0	1	2	3	4	5	6	7	8	9
	0	1	2	3	4	5	6	7	8	9
	0	1	2	3	4	5	6	7	8	9
	0	1	2	3	4	5	6	7	8	9
	0	1	2	3	4	5	6	7	8	9
	0	1	2	3	4	5	6	7	8	9

PART 1

| | | |

A P P E N D I X C

R. D. E. SCALE (FORM E)

APPENDIX C

R.D.E. SCALE (FORM E)

The following is a study of what the general public thinks and feels about a number of important social and personal questions. The best answer to each statement below is your personal opinion. We have tried to cover many different and opposing points of view; you may find yourself agreeing with some of the statements, disagreeing just as strongly with others, perhaps uncertain about others; whether you agree or disagree with any statement, you can be sure that many people feel the same as you do.

Mark each statement in the left margin according to how much you agree or disagree with it. Please mark every one. Write +1, +2, +3, or -1, -2, -3, depending on how you feel in each case.

+1:	I AGREE A LITTLE	-1:	I DISAGREE A LITTLE
+2:	I AGREE ON THE WHOLE	-2:	I DISAGREE ON THE WHOLE
+3:	I AGREE VERY MUCH	-3:	I DISAGREE VERY MUCH

___ 1. A person who gets enthusiastic about too many causes is likely to be a pretty "wish-washy" sort of person.

___ 2. Man on his own is a helpless and miserable creature.

___ 3. It is better to be a dead hero than a live coward.

___ 4. If a man is to accomplish his mission in life it is sometimes necessary to gamble "all or nothing at all".

___ 5. Once I get wound up in a heated discussion I just can't stop.

___ 6. In the long run the best way to live is to pick friends and associates whose tastes and beliefs are the same as one's own.

___ 7. Most people just don't give a "damn" for others.

___ 8. My blood boils whenever a person stubbornly refuses to admit he's wrong.

___ 9. It is only natural for a person to be rather fearful of the future.

___ 10. When it comes to differences of opinion in religion we must be careful not to compromise with those who believe differently from the way we do.

___ 11. While I don't like to admit this even to myself, my secret ambition is to become a great man, like Einstein, or Beethoven, or Shakespeare.

___ 12. It is often desirable to reserve judgement about what's going on until one has had a chance to hear the opinions of those one respects.

___ 13. It is only natural that a person would have a much better acquaintance with ideas he believes in than with ideas he opposes.

___ 14. To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.

___ 15. The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.

___ 16. The main thing in life is for a person to want to do something important.

___ 17. A person who thinks primarily of his own happiness is beneath contempt.

___ 18. In times like these, a person must be pretty selfish if he considers primarily his own happiness.

___ 19. In a discussion I often find it necessary to repeat myself several times to make sure I am being understood.

___ 20. In times like these it is often necessary to be more on guard against ideas put out by people or groups in one's own camp than by those in the opposing camps.

___ 21. The United States and Russia have just about nothing in common.

___ 22. In this complicated world of ours the only way we can know what's going on is to rely on leaders or experts who can be trusted.

___ 23. Most of the ideas which get printed nowadays aren't worth the paper they are printed on.

___ 24. Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups.

___ 25. If given the chance I would do something of great benefit to the world.

___ 26. There is so much to be done and so little time to do it in.

___ 27. The present is all too often full of unhappiness. It is only the future that counts.

___ 28. In the history of mankind there have probably been just a handful of really great thinkers.

___ 29. A man who does not believe in some great cause has not really lived.

___ 30. There are a number of people I have come to hate because of the things they stand for.

___ 31. I'd like it if I could find someone who would tell me how to solve my personal problems.

___ 32. Fundamentally, the world we live in is a pretty lonesome place.

___ 33. The worst crime a person could commit is to attack publicly the people who believe in the same thing he does.

___ 34. Most people just don't know what's good for them.

___ 35. Of all the different philosophies which exist in this world there is probably only one which is correct.

___ 36. A group which tolerates too much differences of opinion among its own members cannot exist for long.

___ 37. There are two kinds of people in this world: those who are for the truth and those who are against the truth.

___ 38. It is only when a person devotes himself to an ideal or cause that life becomes meaningful.

___ 39. In a heated discussion I generally become so absorbed in what I am going to say that I forget to listen to what the others are saying.

___ 40. Unfortunately, a good many people with whom I have discussed important social and moral problems don't really understand what's going on.

A P P E N D I X D

AII INVENTORY

APPENDIX D

AII INVENTORY

Read each of the following statements and decide how much you agree or disagree. Please answer in the manner indicated below.

NOTE:

Answer all the questions. Mark only one choice for each question.

If you wish to change an answer, be certain to erase the undesired answer completely.

There are no right or wrong answers.

There is no time limit.

A. I STRONGLY AGREE
B. I AGREE
C. UNDECIDED
D. I DISAGREE
E. I STRONGLY DISAGREE

Make a heavy mark in the answer space of your choice.
Example: ___ ___ ___ ▬ ___

	A	B	C	D	E	
1.	___	___	___	___	___	Jeers humiliate me even when I know I am right.
2.	___	___	___	___	___	I worry about situations where I am being tested.
3.	___	___	___	___	___	The best way to teach a child right from wrong is to spank him when he is wrong.
4.	___	___	___	___	___	I must learn to "keep my head" when things go wrong.
5.	___	___	___	___	___	I think I am getting a fair deal in life.
6.	___	___	___	___	___	I worry about eternity.

	A	B	C	D	E	
7.	___	___	___	___	___	I am happiest when I am sitting around doing little or nothing.
8.	___	___	___	___	___	I prefer to be independent of others in making decisions.
9.	___	___	___	___	___	If a person is ill-tempered and moody, he will probably never change.
10.	___	___	___	___	___	I get very upset when I hear of people (not close relatives or close friends) who are very ill.
11.	___	___	___	___	___	Crime never pays.
12.	___	___	___	___	___	My family and close friends do not take enough time to become acquainted with my problems.
13.	___	___	___	___	___	People who do not achieve competency in at least one area are worthless.
14.	___	___	___	___	___	We are justified in refusing to forgive our enemies.
15.	___	___	___	___	___	I frequently feel unhappy with my appearance.
16.	___	___	___	___	___	I feel that life has a great deal more happiness than trouble.
17.	___	___	___	___	___	I worry over possible misfortunes.
18.	___	___	___	___	___	I often spend more time in trying to think of ways of getting out of something than it would take me to do it.
19.	___	___	___	___	___	I tend to look to others for the kind of behavior they approve as right or wrong.
20.	___	___	___	___	___	Some people are dull and unimaginative because of defective training as a child.
21.	___	___	___	___	___	Helping others is the very basis of life.
22.	___	___	___	___	___	School promotions should be for intellectual merit alone.

	A	B	C	D	E	
23.	___	___	___	___	___	It is very important to me when I do a good job to be praised.
24.	___	___	___	___	___	I find it difficult to take criticism without feeling hurt.
25.	___	___	___	___	___	It is terribly upsetting the way some students seem to be constantly protesting about one thing or another.
26.	___	___	___	___	___	It is impossible at any given time to change one's emotions.
27.	___	___	___	___	___	I tend to worry about possible accidents and disasters.
28.	___	___	___	___	___	I need to learn how to keep from being too assertive or too bold.
29.	___	___	___	___	___	To cooperate with others is better than doing what you feel should be done.
30.	___	___	___	___	___	Sympathy is the most beautiful emotion of man.
31.	___	___	___	___	___	People who criticize the government are either ignorant or foolish.
32.	___	___	___	___	___	I wish that more affection were shown by members of my family.
33.	___	___	___	___	___	When a person is no longer interested in doing his best, he is done for.
34.	___	___	___	___	___	I get very angry when I miss a bus which passes only a few feet away from me.
35.	___	___	___	___	___	My place of employment and/or my neighborhood provide adequate opportunity for me to meet and make friends.
36.	___	___	___	___	___	I can walk past a grave yard alone at night without feeling uneasy.
37.	___	___	___	___	___	I avoid inviting others to my home because it is not as nice as theirs.

	A	B	C	D	E	
38.	___	___	___	___	___	I prefer to have someone with me when I receive bad news.
39.	___	___	___	___	___	It is necessary to be especially friendly to new co-workers and neighbors.
40.	___	___	___	___	___	The good person is usually right.
41.	___	___	___	___	___	Sometimes I feel that no one loves me.
42.	___	___	___	___	___	I worry about little things.
43.	___	___	___	___	___	Riches are a sure basis for happiness in the home.
44.	___	___	___	___	___	I can face a difficult task without fear.
45.	___	___	___	___	___	I usually try to avoid doing chores which I dislike doing.
46.	___	___	___	___	___	I like to bear responsibilities alone.
47.	___	___	___	___	___	Other peoples problems frequently cause me concern.
48.	___	___	___	___	___	It is sinful to doubt the Bible.
49.	___	___	___	___	___	It makes me very uncomfortable to be different.
50.	___	___	___	___	___	I get terribly upset and miserable when things are not the way I would like them to be.
51.	___	___	___	___	___	I find that my occupation and social life tends to make me unhappy.
52.	___	___	___	___	___	I am afraid in the dark.
53.	___	___	___	___	___	Many people that I know are so unkind or unfriendly that I avoid them.
54.	___	___	___	___	___	It is better to take risks and commit possible errors, than to seek unnecessary aid of others.

	A	B	C	D	E	
55.	___	___	___	___	___	I get disgusted when neighbors are very harsh with their little children.
56.	___	___	___	___	___	I find it very upsetting when important people are indifferent to me.
57.	___	___	___	___	___	I have sometimes had a nickname which upset me.
58.	___	___	___	___	___	I have sometimes crossed the street to avoid meeting some person.
59.	___	___	___	___	___	When a friend ignores me I become extremely upset.
60.	___	___	___	___	___	My feelings are easily hurt.

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